

CDR Wood Buffalo

C-03

Drilling Authority No. 368
Date Issued March 19, 1969

WELL NAME CTR Wood Buffalo C-03

FIELD

LOCATION: Unit

C

Area:

Section

03

Grid

60-40-114-30

Latitude

60-32-00.04

Longitude

114-30-59.91

From Established Reference Marker

U.W.L.R. 60.53334 --- 114.51664

U.W.I. 9000076060114300

Rig Release Date:

Status

Information Release Date

CHANGE OF NAME:

DATE RECEIVED	INDEX
March 19, 1969	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.
Apr 26/69	Well Completion Data.
	Work-over Report No.
	Application to Commingle Production before Measurement.
	Data for Back Pressure Test on Natural Gas Wells — Monograph 7 Method.
	Data for Back Pressure Test on Natural Gas Wells — Vitter's Method.
	M.P.R. — Oil — Calculations.
	New Oil Well Report.
	New Gas Well Report.
	Well Inspection Report.
	Rig Inspection Report.
	Battery Inspection Report.
	Equipment Report.
	Well Card.
	New Service Well Report.
	Monthly Water Flood Operations Report
	Monthly Water Receipts and Disposal of Fluids Report
	Lngs. Large scale Small scale

CEMENTING RECORD (Piling, Spacing, etc.)				PERFORATING RECORD (Holes, etc.)				SPEECH RECORD (Logging, etc.)			
Date	From	To	Remarks	Date	From	To	Remarks	Date	From	To	Remarks
June 15/69	TD	800'	10 sacks of cement								
June 15/69	213'	Surface	5 sacks of cement Plate added on and identification marker erected.								

WELL STEM TESTS

No.	Date	Formation	From	To	V.O. Min.	S.S. Min.	P.S.L. Min.	S.L.H.H.P. P.S.L.H.H.P.	L.P.H.H.P.	F.P.H.H.P.	L.H.P.	F.H.P.	REMARKS



ANALYSIS				PRESENT STATUS OF WELL			
Lab. No.	Sample	From	To	Oil	Gas	Dry	Seep

Company: **Cheney Oil Ltd.**
 Signed by: **(Signature)** (W. J. Smith)
 Title: **Superintendent of Operations**
 Date: **November 26, 1969**
 Form to be prepared in duplicate and forwarded to the Oil
 Conservation Board, Calgary, Alberta.

CEMENTING RECORD (Pipe, Spacers, etc.)				PERFORATING RECORD (Holes, etc.)				SERVICING RECORD (Acidizing, Fracking, etc.)			
Date	From	To	Remarks	Date	From	To	Remarks	Date	From	To	Remarks
			Jackhead								

WELL STEM TESTS

No.	Date	Formation	From	To	V.O. Min.	L.S.L. Min.	P.A.L. Min.	U.S.I.H.N.P. P.S.I.H.N.P.	L.P.H.N.P.	R.P.H.N.P.	L.H.P.	F.H.P.	REMARKS



ABALLIES				PRESENT STATUS OF WELL			
Date	From	To	Remarks	Oil	Water	Gas	Other

Company: **Conservancy-Don Rio Gila Limited**
 Signed by: *[Signature]* **J. M. Gibson**
 Title: **Staff Engineer**
 Date: **November 2, 1969**

Form to be prepared in duplicate and forwarded to the Oil
 Conservancy Engineers, Calgary, Alberta.



File No. _____
Drilling Authority No. **300**

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
Resource Management Division

Application to Abandon a Well or Suspend Drilling

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

Name and address of well: **Oil Wind Buffalo- G-13**
Location: Unit **G** Section **03** Grid **60°40', 114°30'**
Latitude **60° 35' 00.04"** Longitude **114° 30' 00.01"**
From Established Reference Marker **BM 123**
Universal Well Location Reference Lat. **60.58334° N.** Long. **114.51664° W.**
Permit No. **4724** Lease No. _____

Central-Del Rio Oil Limited

Date of commencement of proposed program: May **23, 1968**

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at _____
Gas at _____
Water at _____
Total Depth **150** Date of last operations May **23, 1968**
Present condition of well **Dry H-1e**

CASING RECORD

Casing Size (O.D. Section)	Weight	Amount	Set At	Notes of Cement and Additives	Amount Poured
1. 2 1/2	2.9	150	150		None
2. _____					
3. _____					
4. _____					
5. _____					

PROPOSED ABANDONMENT PROGRAM

No.	Flow	Geological Formation	Number of Sacks of Cement	Remarks
		None Junked		

The following logs have been run: **None**
Other operations proposed: **H-1e**

Operations to be carried out by **Amilis Explorations Ltd.**, Contractor Licence No. _____
Address **2-1347 12th Avenue S.W., Calgary, Alta.** Address _____

Responsible Agent in field **D. McTavish**

Dated at **Calgary, Alberta**, this **23** Day of **March**, 19 **69**

Signed by **(W. J. Scott)** Company **Central-Del Rio Oil Limited**

Title **Operations Superintendent** Operator's Exploratory Licence No. **1115 & 1260**

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

(For RESOURCE MANAGEMENT DIVISION use only)
APPROVAL

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

Dated **5th March**, 19 **70**

B. H. Thomas
Oil Conservation Engineer

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



File No.
Drilling Authority No. 200

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

Application to Abandon a Well

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

Name and number of well: **CNE Wood Buffalo C-03a**
Location: Unit **G** Section **03** Grid **60°40' 114°30'**
Latitude **40° 22' 00.04"** Longitude **114° 30' 58.91"**
From Established Reference Marker **BM 125**
Universal Well Location Reference **Lat. 60.36944° N., Long. 114.51664° W.**
Permit No. **4734** Lease No.

Central-Sol Rio Oils Limited
(Production, Lethbridge, Canada)

Date of commencement of proposed program: **June 15, 1969**

OIL, GAS, AND WATER ENCOUNTERED
(Depth)

Oil at _____
Gas at _____
Water at _____
Total Depth **1148** Date of last operations **June 15, 1969**
Present condition of well **Dry Hole**

CASING RECORD

Casing Size (O.D. inches)	Weight	Amount	Set At	Notes of Cement and Additives	Amount Pulled
1. 8 1/2"	2.8	212	212	6 sacks of cement	2000
2.					
3.					
4.					
5.					

PROPOSED ABANDONMENT PROGRAM

No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1	TD to 800'	Eng River Platform	10	
		& Eng River		
2	812' to surface	Slave Point	6	

The following logs have been run **None**
Other operations proposed

Operations to be carried out by **Apollo Explorations Ltd.** Contractor Licence No.
Address **8 - 1547 18th Avenue S.W., Calgary, Alta.** Address
Responsible Agent in field **S. McFarish**
Dated at **Calgary, Alberta** this **16th** Day of **June** 19 **69**
Signed by **V.J. Scott** Company **Central-Sol Rio Oils Limited**
Title **Operations Superintendent** Operator's Exploratory Licence No. **1115 & 1208**

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

(For RESOURCE MANAGEMENT DIVISION use only)

APPROVAL

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

Confirming oral approval given by Mr. S.H.J. Thoms
on the 12th June 1969.

Dated **5th March** 19 **70**

Boyd S. Thoms
Oil Conservation Engineer

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



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

MINERAL DEVELOPMENT DIVISION

OIL AND MINERAL DIVISION

Application for a Drilling Authority

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

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

Name and number of well **CNE Wood Buffalo C-03**
 Location: Unit **5** Section **03** Twp **50°40' N** Rng **114°30' W**
 Latitude **50°32' 08.04"** Longitude **114°30' 30.91"**
 From Established Reference Marker **20120**
 Universal Well Location Reference **Lat. 50.53333° N., Long. 114.51666° W.**
 Elevation: Ground **220 ft.** **K.N.** feet above sea level.
 Well is expected to produce from **Big River** formation at a depth
 of about **700** feet. Expected total final depth **1200**
 Area assigned to well (See Oil Conservation Engineer's use only)

Permit No. **4734** Lease No. **20000** Accegrage **20000**
 Permittee, licensee, or lease **Control-Oil Rio Oils Limited**
 Exploratory Licence No. **1115**
 Surface owned by Crown or **Crown**

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	Run in (Feet)	Estimated Depth	Notes of Cement
1. 8 1/2	2.9	J-55	Run	120	
2.					
3.					
4.					
5.					

Expected water, gas, and oil horizons and type of control equipment **adequately weighted drilling fluid and blowout preventers.**

Well will be drilled with Rotary Rig No. **1** by **Apollo Exploration Ltd.**

(Drilling Contractor or company)

Responsible agent of applicant **S. McEwen** Contractor's business licence No. **Applied For**
 At well **S. McEwen** At registered office **U. J. Scott**
 Address **Sylvan, Saskatchewan** Address **720 - 5th Avenue S.W., Calgary 2, Alberta.**
 It is understood that if changes become necessary, notice of the change of plan will be submitted.
 Dated at **Calgary, Alberta** this **19th** day of **March** 19 **60**
 Signed by **Staff Engineer** Company **Control-Oil Rio Oils Limited**
 Title **Staff Engineer** Operator's Licence No. **1115**

(For Resource Management Division use only)

APPROVED

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

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

Dated **19th March**

Oil Conservation Engineer

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

(AND 52-96-1 (3-47))

UNIQUE WELL IDENTIFIER - 300003480110300



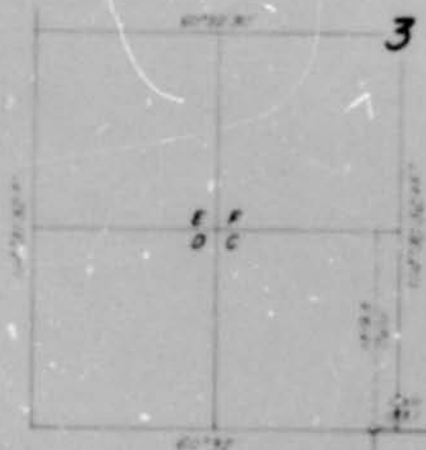
drilling fluids, chemicals and wastes shall be disposed of or contained in a manner that will prevent the contamination of adjacent vegetation and surface or sub-surface waters.

3. Surface casing shall be cemented at least 75 feet into a competent formation.
4. We draw your attention to Sections 75 and 96 of the Canada Oil and Gas Land Regulations.

Beth S. Lewis
Oil Conservation Engineer

FINAL PLAN
CDR WOOD BUFFALO
C3, 60-40, 114-30

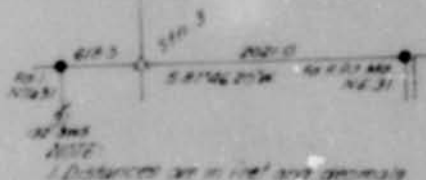
Latitude $60^{\circ}32'00''$ Longitude $114^{\circ}30'59''$
 NORTHWEST TERRITORIES



COORDINATE TABLE
 UTM Values Scale Factor: 0.9999 Easting: 117000

Station	Bearing	Distance	North	East
N.E. 31	S 81°56' 20" W	2021.0	20026.8815	448.3954
3	N 0°05' 20" W	4765.0	47606.7729	447.7759
Well Loc			70033.6544	447.1946

Scale: 1000 ft = 1 in



Survey completed 12th day of March 1969
 Certified correct

[Signature]

CENTRAL-DEL RIO OILS LIMITED

[Signature]

[Signature]

ELEV: 836 ft
 DATUM: B.M. #122



MIDWEST SURVEYS CO. LTD.

C 178-69 b

26-11-4 N
WELL HISTORY RECORD
on the
DRILLING & ABANDONMENT
of
26-11-4 N
CIN Wood Buffalo C-03 and C-03A
Copy #3

26-11-4-18.



0000000000000000

WELL HISTORY RECORD



on the

DRILLING & ABANDONMENT

of

CDR Wood Buffalo C-03 and C-03A

Location: Latitude $50^{\circ} 32' 0.04''$
Longitude $114^{\circ} 30' 59.91''$

Northeast Territories

0000000000000000

I N D E X

Section I - Summary of Well Data	1 - 2, 3
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Approved By: _____

A handwritten signature in dark ink, appearing to be 'J. M. H.', is written over a horizontal line.

CIR Wood Buffalo C-03

Section I - Summary of Well Data

- a) Well name and number - CIR Wood Buffalo C-03
- b) Permittee - Central-Del Rio Oils Limited
- c) Name of operator - Central-Del Rio Oils Limited
Unit C, Sec. 03, Grid 6/40° 114° 30' W. 30° 59.91' N.
- d) Location - Lat. 60.53334° N., Long. 114.51664° W.
- e) Co-ordinates - Lat. 60° 32' 00.04", Long. 114° 30' 59.91"
- f) Permit No. 4734
- g) Drilling Contractor - Appollo Explorations Limited - Rig No. 1
Rotary.
- h) Drilling authority - 368 - March 19, 1969
- i) Classification - Wild Cat
- j) Elevation - 836
All measurements are taken from ground level.
- k) Spudded - May 14, 1969
- l) Completed drilling - May 22, 1969
- m) Total depth - 150'
- n) Well status - Junked hole abandon & moved rig 2 feet south.
- o) Rig release - May 22, 1969
- p) Hole size - 3 1/2"
- q) Casing - 143' of 2 7/8" BX casing & 150' of 2 1/2" AX casing. BX casing broke off 69' from surface. Fished all day. Lost in hole 12' of NX casing & 1 NX casing shoe. 75' of BX casing & BX casing shoe.

CDR Wood Buffalo C-03a

Section I - Summary of Well Data

- a) Well Name and Number - CDR Wood Buffalo C-03a
 - b) Permittee - Central-Del Rio Oils Limited
 - c) Name of Operator - Central-Del Rio Oils Limited
 - d) Location - Lat. 60.53334° N., Long. 114.51664° W. UTM: 18QDU360/0114300
 - e) Co-ordinates - Lat. 60° 32' 00.04", Long. 114° 30' 59.91"
Unit C, Sec. 05, T12S R14W
 - f) Permit - No. 4734
 - g) Drilling Contractor - Apollo Exploration Ltd., Rig No. 1 Rotary
 - h) Drilling Authority - 388, March 19, 1969
 - i) Classification - Wildcat
 - j) Elevation - 836
- All measurements are taken from ground level.
- k) Spudded - May 23, 1969
 - l) Completed Drilling - June 14, 1969
 - m) Total Depth - 1142'
 - n) Well Status - Dry and Abandoned
 - o) Rig Release - June 15, 1969
 - p) Hole Size - 1 3/4" 212-TD; 2 7/8" Surface to 212'
 - q) Casing - 212' of 2 1/4" AX casing with 6 sacks of cement.
2 7/8" BX casing from 149' to 123' left in hole.
Behind surface pipe.

Section III - Engineering Summary

- a) Report of Drill Stem Tests - None taken
- b) Casing Record - 26' of BX 2 7/8" O.D. 4.7#/ft. from 149' to 123'
212' of AX 2 1/4" O.D. 2.9#/ft. from 212' to surface
Cemented with 6 sacks of cement
- c) Bit Record - None kept according to mining custom
- d) Mud Report - Water only used
- e) Deviation Record - None taken
- f) Abandonment Plugs - 10 sacks of cement from T.D. to 800'
5 sacks of cement from 212' to surface

Section VI - Completion Record

- a) June 15, 1969 ran Plug No. 1, T.D. to 800' with 10 sacks of cement
June 15, 1969 ran Plug No. 2, 212' to surface with 5 sacks of cement

C-3-60-60-114-30

Spudded May 14, 1968
May 15 20' drilling surface hole with new EX casing and shoe.
May 16 80'
May 17 no shift. Men in Hay River.
May 18 same.
May 19 8:00 a.m. 137'. Broke EX casing off at 85'
May 19 Fishing EX casing. Man hurt, no drilling.
May 20 Drilling casing.
May 21 8:00 a.m. EX to bed rock at 141'
May 22 EX casing to 143', AX casing to 150'. Broke EX casing
69' from surface. Fished all day. Lost in hole 12'
of NX casing 1 NX casing shoe. 75' of EX casing and
EX casing shoe.
May 23 Moved hole 2' south and started again with EX casing
and shoe.
May 24 8:00 a.m. 58'
May 25 8:00 a.m. 109'
May 26 25 & 26 Equipment broke down.
May 27 8:00 a.m. 142' Cored AX from 147'
May 28 212'. EX casing broke off at 123'. Could not fish.
26' EX casing left in hole.
Cemented AX surface casing with 6 bags of cement at
8:30 p.m.
May 29 Waiting on cement, installed B.O.P. and Flare line.
May 30 Drilled out at 1:30 p.m. Hole caved at 213.6'.
Cemented with quick drying cement 130' to 256'.
8 bags.
May 31 8:00 a.m. 256'. Sand or shale from 226' - 236' and
from 238.2 to 242'.
June 1 Waiting on cement to set.
June 2 8:00 a.m. 200' in cement. Cement hadn't set between
213' and 236'. Ran 5 bags of quick drying cement under
pressure. Waited 12 hours.
June 3 190'
June 4 292'
June 5 384'
June 6 506'
June 7 595'
June 8 645'
June 9 743'
June 10 824'
June 11 907'
June 12 976'
June 13 1040'
June 14 1074'
June 14 10:30 p.m. 1142'. 2 runs stuck 60' from bottom.
Concerned about losing drill string. Shut rig in.
June 15 Phone Calgary for permission to abandon.
June 15 Ran 10 sacks of cement from 800 to TD. Ran 5 sacks
cement from 212' to surface. Rig released.

CHS 1000 METALG 0-01A

GEOLOGICAL TYPE

DIAPY

DIAPY

Fort Vermilion

243

+991

Watt Mountain

301

+535

Sulphur Point

318

+518

Husky

404

+630

Log River

661

+05

Platform

1074

+038

COR MOOD BUFFALO C-03 60-40 114-30

Latitude 60° 32' 00.04" Longitude 114° 30' 59.91" N.W.T.

Ground Elev. 836'

Core begins at 137' in Slave Point.

- 137 - 157.5 (20.5') Limestone, light brown, micrograined to fine grained in a clay size matrix. Skeletal debris from 140 to 147' contains branching corals, amphipora, starry odes (?) brachiopods, cabbage stroms and ostracods. Trace spotty light brown stain, with light streaming cut found in fossils. From 147 to 157.5 grain size increases to fine with clay size matrix and abundant clear calcite infilling voids between fragments. Minor dark brown bituminous partings are present in this interval which give a streaming cut in chlorothene and a light petroliferous odor on a fresh break. No visible porosity. Represents a back barrier or patch reef in lagoonal environment. Ineffective.
- 157.5 - 173.4 (15.9') Limestone, light grey, micrograined in mud matrix contains abundant fine dark brown argillaceous laminae (bituminous?). Scattered syneresis cracks, infilled with clear calcite. Trace thin shell brachs. From 158 - 163 and 168.9 to 170 a light brown oil stain picks out an algal type structure with very limited, very fine blind vug porosity. Grain size varies from crypto to very fine grained, streaming cut in chlorothene, good odor on fresh break. Ineffective.
- 173.4 - 192.4 (19') Limestone, light brown, fine grained in a cryptograined matrix. No visible porosity. Patchy light brown oil stain throughout, cuts in chlorothene. This is interpreted as originally a fine granular limestone subsequently infilled with chalk. Minor skeletal debris scattered throughout. Scattered wispy argillaceous partings. Becomes quite argillaceous at 184' with a resultant loss of fine grained constituent. Ineffective.
- 192.4 - 207 (14.6') Limestone, light brown, fine grained in cryptograined matrix with branching corals and spotty light brown oil stain grades downwards into cemented lump limestone from 197 to 202. Vague pelleting and oolites present with abundant birdseyes and syneresis cracks in lump facies. This in turn is replaced by light buff crypto grained limestone with scattered skeletal debris and wispy argillaceous partings. Above 202 a minor amount of fine pinpoint blind vug porosity with light brown oil stain is present. Ineffective

- 207 - 208 Core missing.
- 208 - 213 (5') Limestone, light brown, fine grained with crypto grained matrix. Cemented lump limestone present with clear calcite. Scattered birdseyes and spherulitic cracks. Scattered thin shell brachiopods. No stain, no porosity, ineffective.
- 213 - 226 (13') Limestone, light brown, microcrystalline with mud matrix, abundant thin argillaceous partings, giving laminated appearance.
- 226 - 242 (16') Limestone, light grey brown, micro granular, cemented, with scattered poor fine vug porosity. One 0.5' section at 227 appears to be a weathered fossil fragment, (coral possibly?) with fair to good vuggy porosity due to fine granular texture. Porosity is reduced by chalk matrix in part. No shows, ineffective.
- Core missing from 229.8 - 236.7
238 - 242.6
- PORT VERMILLION 242
- 242 - 247 (5') Interbedded dolomite, anhydrite and gypsum. The dolomite is a light greyish brown, mud textured, primary sediment with fine bands of clear gypsum and white to tan primary anhydrite banding is suggestive of algal activity. Some grey marbling effect in upper 1 foot.
- 247 - 251 (4') Limestone, light brown, micrograined in crypto grained matrix with interval 248-250 composed of cemented lump limestone. Cemented with clear calcite and infilled with clear gypsum. Trace finely disseminated pyrite. Trace pebbles.
- 251 - 263 (12') Dolomite, light brown, microcrystalline, subhedral, dense with some fine pyrite blebs with some thin interbedded limestone, light brown mud textured.
- 263 - 271 (8') Limestone, light brown to buff, micrograined with crypto-grained matrix plugging pore space. Trace of poor pin point to 1/4" blind vug porosity, no shows, ineffective.
- 271 - 275 (4') Dolomite, light brown, crypto-crystalline, subhedral, dense, trace finely disseminated pyrite blebs contains some carbonaceous plant imprints. Tight.
- 275 - 295 (20') Interbedded dolomite, anhydrite and gypsum. Dolomite, light grey brown, micro crystalline, subhedral, crypto-crystalline matrix, contains fair quantity of finely disseminated pyrite. Some algal bands present. Dolomite occurs in beds up to 1 foot thick. Anhydrite is white secondary and occurs in beds up to 2 feet in thickness which contains fragments of enclosing dolomite, some anhydrite occurs in pillow like forms. The gypsum

275 - 295 (20') Continued..

occurs as clear fracture filling, some yellow sulfur stain from 280 to 286. No hydrocarbon shows, core missing 288 - 292.

295 - 301 (6')

Interbedded limestone and anhydrite.

Limestone is light grey, micro to crypto grained with scattered finely disseminated pyrite. Trace pin point vug porosity, partially infilled with clear gypsum. Ineffective. Anhydrite is white, secondary, enclosing fragments of limestone, tends to a marbled appearance in part. Basal 2' of interval contains stringer of limestone, light grey brown, pelleted in cryptocrystalline matrix, tight.

MATT MOUNTAIN 301'

301 - 318 (17')

Limestone, light grey to light brown, mud textured in part, ranging to micrograined to pelleted. Pelleted variety is in a cryptograined matrix. All contain blebs and thin interbeds of light green waxy shale as well as finely disseminated pyrite. Some open vertical fracturing present. Core lost from 302 - 309 (Driller notes as mud seam) and from 311 - 313.

SULPHUR POINT 318

318 - 328.5 (10.5')

Limestone, light to medium grey brown, fine grained set in micro to cryptograined matrix. Tends to a cemented lump limestone. Some pellets and coralline material identifiable. Porosity is fair to good fine vuggy (pin point to pencil point) contains black oil residue which gives a light streaming cut in chloroform. Some vertical fractures, effective.

328.5 - 337.0 (8.5')

1 foot recovery, dolomite, light brown, medium crystalline subhedral interlocking. Scattered fine vug (up to 1/4") porosity with black tarry residue. No fluorescence, no cut. 1 partially open oblique fracture. Poorly effective, trace white tertiary dolomite infilling vugs and fractures.

337 - 369.5 (32.5')

No recovery. 351-352, 356.8 - 361.8

3 limestone, light brownish grey, fine grained in crypto grained matrix, minor vuggy porosity grades downwards into 4.5' limestone, light brown mud textured, fractured with green shale infilling fractures. Scattered fine vugs with tarry black bitumen infilling. This in turn grades downwards into organic lattice with fair to good vuggy and coralline type of porosity. Scattered trace of intergranular porosity. Fractures common, bitumen as above in vugs and fractures.

337 - 369.5 (32.5')

Continued.

Light streaming cut from 355-356.8 from a fine, intergranular type of porosity. Remainder of section does not cut. Effective.

369.5 - 395.4 (25.9')

Dolomite, light brownish grey, fine to medium crystalline, subhedral, interlocking, scattered fine vug porosity, generally crypto to microcrystalline matrix. Scattered finely disseminated black bitumen. Texture grades to a dolomitized mud in some spots. Scattered vertical and oblique fractures, partially open. Scattered algal laminations throughout. Upper 1 foot has heavy medium brown oil stain which cuts freely. Some evidence of intra-formational brecciation, trace white tertiary dolomite. Poorly effective. Core missing 379.4-384.9

390 - 392

395.4 - 404 (8.6')

Limestone, medium brown, fine grained, grading to fine granular in part with cryptograined matrix, scattered intergranular and fine vug porosity. No shows. Poorly effective, core lost 395.4 - 400.

MUREG 404

404 - 460.5 (56.5')

Anhydrite, light brown to white, primary with clear gypsum infilling fractures. Some thin (0.5' to 2') interbeds of dolomite, light brownish grey, microcrystalline, subhedral, dense.

Both anhydrite and dolomite have strong algal laminations which indicate dip up to 35° and an average of about 20° decreasing with depth to about 5° at 450'. Minor inclusions of dolomite fragments present in anhydrite 457-458.

Core Missing

414 - 421

462.9- 470.8

479.4- 482.4

484 - 486

486.5- 493

495 - 498.6

506.8- 508

512 - 529

532.6- 538

460.5 - 462.9 (2.4')

Dolomite, light brown fine crystalline, subhedral, partially interlocking, fair to good intercrystalline porosity, no show, effective.

470.8 - 499.6 (28.8')

Anhydrite, grey white and brown primary as above with thin interbeds of clear gypsum. Some beds of dolomite (1 to 2' thick) light brown fine crystalline, subhedral interlocking with poor intercrystalline porosity. One dolomite beds contains either amphipora or branching coral casts infilled with white secondary anhydrite. Ineffective.

- 499.6 - 512 (12.4') Dolomite, light brownish grey, fine crystalline, subhedral, interlocking scattered poor intercrystalline porosity, contains some vague amphipora or coral like halo's, dark grey wispy argillaceous shale partings scattered throughout. Doubtful effective. Core missing 506.8 - 509.
- 512 - 529 No core recovered.
- 529 - 543 (14') Dolomite, light brownish grey, very fine to fine crystalline, subhedral, interlocking with poor to fair intercrystalline porosity and some fine vug porosity. Scattered amphipora and or coral halo's. Wispy dark argillaceous shale partings throughout. 0.5' bed blue grey anhydrite, slightly dolomitic at 541. No recovery 533 - 540.5.
- 543 - 550 (7') No recovery.
- 550 - 633 (83') Anhydrite, white, brown, grey, primary with occasional thin clear gypsum interbed. (Shrinkage cracks?). Dolomite, brown to brownish grey, micro to fine crystalline subhedral interlocking, dense, occurs as 1 to 2 foot beds. From 592 - 593 a dolomitized organic lattice has been infilled with white primary anhydrite. Some of the dolomites have a pronounced algal laminate structure indicating 5° to 10° dips. Trace fine vug porosity, ineffective.
- Core missing:
- 553.7 - 558.5
 - 561 - 575.5
 - 579.5 - 582.8
 - 584.2 - 592
 - 596.8 - 622
 - 623.8 - 633
- 633 - 635.7 (2.7') Dolomite, light grey micro crystalline, subhedral, partial interlocking with fair intercrystalline porosity, no shows. Appears to be a dolomitized lump limestone. Some wispy shale partings. 10° dip. Effective.
- 635.7 - 645.0 Lost core.
- 645.0 - 646 (1.0) Anhydrite, blue grey to white primary with thin bands of brown primary dolomite which indicate a dip of 45°. Trace of pyrite and trace clear gypsum infilling cracks in anhydrite.
- 646 - 650.6 (4.6') Lost core except for small amount of rubble composed of white primary anhydrite and dolomite, light brown, fine crystalline subhedral interlocking, dense.

650.6 - 658.6	Core Missing.
658.6 - 671 (12.4')	Dolomite, light brown to brownish grey, very fine to fine crystalline, subhedral interlocking, some intercrystalline porosity has been infilled with secondary white anhydrite. Some fine vugs and fractures are infilled with brown translucent anhydrite. Numerous fine laminae indicate dips ranging between 25° and 60° with average about 35°. Laminae in basal 1 foot indicate beds are vertical as does the 3 feet of rubble above it.
671 - 690 (19')	Core lost except for 0.2'. White anhydrite @ 673 and 0.3' of dolomite @ 688.0', light brownish grey, mud textured with common pin point blind vugs. Abundant 1 mm laminae of clear gypsum are present with a 45° dip.
690 - 693 (3')	Dolomite, light greyish brown, very fine crystalline, subhedral, interlocking abundant pin point to pencil point blind vugs possibly fossil casts. Some thin argillaceous laminae dipping @ 45°.
693 - 702.5 (9.5')	691 - 69.5 - Core missing.
702.5 - 703 (0.5')	Core missing.
703 - 713 (10')	Dolomite as above, some vertical fractures infilled with clear gypsum. 45° dips as above.
713 - 714.5 (1.5')	Core missing.
714.5 - 719.8 (5.3')	Dolomite, light brown, very fine to fine crystalline tending to rhombic with good to excellent intercrystalline porosity. No shows. Effective.
719.8 - 722.8 (3')	Dolomite, light brownish grey, fine crystalline, subhedral, interlocking with trace intercrystalline porosity. Porosity generally obliterated by secondary anhydrite infill. Dips not readily apparent but still appear to be 35° to 45°.
722.8 - 725 (2.2')	Core missing.
725 - 742 (17')	Dolomite, light brownish grey, fine crystalline, subhedral, partially interlocking with fair to good intercrystalline and fine fossil cast vug porosity. No shows. Effective. Overlain by 0.3' grey dolomitic anhydrite.
742 - 743 (1')	Core missing.
743 - 752 (9')	Dolomite, light brown, fine crystalline, subhedral, interlocking, trace intercrystalline porosity. No shows. Ineffective.
	Core Missing.

- 752 - 753.6 (1.6') Dolomite, light brownish grey, fine crystalline, subhedral, tending to rhombic, porosity is obliterated by white secondary anhydrite. Wispy argillaceous partings indicate a 5° dip.
- 753.6 - 762.2 (8.6') Anhydrite, white with enclosed blebs (up to 1/2") of brown anhydrite and brown dolomite (micro crystalline, dense). Some thin dolomitic bands indicate probable collapse on removal of underlying evaporites immediately post deposition.
- 762.2 - 763 (0.8') Organic lattice, dolomite, light brownish grey, micro crystalline, subhedral, interlocking with abundant pin point to 1" vug porosity. Due to fossil casts and coralline material. No shows, effective.
- 763 - 770.6 (7.6') Core missing.
- 770.6 - 776 (5.4') Dolomite, light brownish grey, very finely crystalline, subhedral, interlocking, dense with vague outline of large round stromatoporeoid underlain by white to tan primary anhydrite.
- Core missing 773 - 775.5
- 775.5 - 845 (69.5') Interbedded dolomite and anhydrite. Dolomites vary from fine crystalline, subhedral, partial interlocking with limy chalk infill to dolomitized lime mud. Occasionally some poor to fair intercrystalline porosity develops. Thin wispy argillaceous partings indicate 5 to 10° dips. The anhydrite is mainly tan primary with white secondary anhydrite infilling a network of shrinkage cracks. Trace clear gypsum, occasionally some fine fragments of brown resinous anhydrite caught up in tan anhydrite.
- Core missing 791.6 - 795.9
797.5 - 801
805.5 - 808
809.9 - 818.2
834.4 - 845
- Anhydrite and dolomite occur in beds 1 to 3' thick except for interval 821.5 - 834.4 which is mainly primary anhydrite with indicated dip of 20 - 25°.
- 845 - 861 (16') Dolomite, grey brown, microcrystalline with crypto crystalline matrix, thin wispy dark brown argillaceous partings, trace intercrystalline porosity. Interbedded with anhydrite, grey to light brown primary with thin laminae of tan dolomite, mud texture which increase in 1 to become dominant facies about 2 feet above Keg River Reef.

Con't...

845 - 861 (16') Con't.

Trace clear gypsum with flakes of black bituminous or argillaceous material imbedded in it. Dip average about 20°. Core missing 846 - 853.6.

Keg River 861.0'

861 - 861.6 (0.6')

Dolomite, light greyish brown, micro crystalline, subhedral, dense, contains a vague outline of a bulbous stromatoporoid.

861.6 - 865.5 (3.9')

Core missing.

865.5 - 933 (67.5')

Dolomite, light brown, fine crystalline, decreasing to very fine crystalline with depth, subhedral, interlocking. Poor to fair intercrystalline and intra fossil porosity but generally poor. Contains scattered fragments of colonial corals in upper portion of interval. Larger vugs possibly partially collapsed. Fossil casts have been completely infilled with clear gypsum as have numerous fine random fractures. Some black bituminous partings, trace pyrite. Generally ineffective.

Core missing 873.0 - 876.6

878 - 889.1

889.5 - 897

908 - 909

912 - 914

915 - 919.6

933 - 934.6

934.6 - 959 (24.4)

Crinoidal unit, dolomitized, skeletal limestone made up of well preserved crinoid ossicles set in a micro to fine crystalline dolomite, very limited fine vug porosity, scattered shiny black bituminous partings. Some thin zones of branching and cup corals, some larger vugs are partially collapsed and infilled with clear gypsum. Ineffective.

Core missing 949.6 - 954

959 - 964.6

964.6 - 967 (2.4)

Dolomite, light brown, fine crystalline, subhedral, partially interlocking, poor to fair intercrystalline porosity. Scattered crinoidal and coral debris contribute some intra fossil porosity. No shows. Effective.

967 - 1034.6 (67.6')

Dolomite, light to medium brown, micro to very fine crystalline, subhedral interlocking, dense, numerous wispy black shale partings, some thin shelled brachiopods, occasional crinoid. Some large vugs and fine fractures infilled with clear gypsum.

Core missing:

974.5 - 976
977 - 980
990 - 994
1001.6 - 1004
1005 - 1014
1019 - 1025.3
1026.0 - 1034.6

1034.6 - 1074 (39.4')

Dolomite, light to medium brown, micro to very fine crystalline, subhedral, interlocking, dense, abundant crinoid fragments, scattered fractures infilled with white dolomite. From 1041 - 1046.6 a number of thin dark grey shale interbeds and fine intraformational conglomeratic fragments are present. Dark grey shaley & pyritic zone from 1057 - 1057.3. Core missing 1035.6 - 1040

1046.6 - 1050.4

1053 - 1057

1061.6 - 1068

1069 - 1074

Keg River Platform 1074

1074 - 1076.6 (2.6')

Shale, light grey, very calcareous, contains scattered blebs, finely disseminated pyrite and abundant buff coloured calcareous crinoid and brachiopod debris.

1076.6 - 1079.3 (2.7')

Core missing.

1079.3 - 1082.6 (3.3')

Like mud, light greyish brown with scattered crinoid debris, as above.

1082.6 - 1084 (1.4')

Core missing.

1084 - 1084.5 (0.5')

Dolomite, light brown, micro to very finely crystalline, subhedral, interlocking dense, trace crinoidal debris.

1084.5 - 1111.5 (27')

Core missing.

1111.5 - 1115.5 (4')

Dolomite, light to medium brown, very fine to fine crystalline, subhedral interlocking, dense with occasionally blind vug $\frac{1}{2}$ " to $\frac{1}{4}$ " partially lined with either clear coarse dolomite rhombs or brown medium rhombic dolomite. Fanned by brachiopod shells. No shales. Scattered crinoid debris except for basal 0.5' which is a dolomitized skeletal limestone, composed of medium to coarse subhedral dolomite, interlocking with abundant crinoid debris, dense. Ineffective.

1115.5 - 1123 (8')

Core missing.

1123 - 1125 (2')

Dolomite medium brown micro to very fine crystalline, subhedral interlocking, dense, trace calcite line

1123 - 1125 (2') Cont'..	fractures. (Core mainly rubble). Trace fossil casts as above.
1125 - 1133 (8')	Core missing.
1133 - 1135 (2')	Dolomite, medium brown, fine to coarse crystalline, subhedral, interlocking, dense, abundant crinoid debris. Abundant thin wispy dark brown shale partings (bituminous?). Trace fine fractures infilled with white dolomite.
1135 - 1142 (7')	Core missing.
1142	Total Depth

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CDR Wood Buffalo C03

Company		Well No.	Drilling Record	APOLLO EXPLORATION LTD.		T.D.
Central Del Rio		Del Rio #2	Size: 4-1/2"	Casing	Inclination	
Property Location: Hay River			Date Began:		Date Finished:	

Date	Employees	Footages	Hours	Remarks
11	D Frank	From	8 ✓	put a new runner on the sloop. cut timber for set up and start building set up Rain very hard quit working at 4 PM
	H Stan	To	8 ✓	
	D John	From	8 ✓	
	H Charles	To Hinanik	8 ✓	
	D Harry	From	8 ✓	
	H	To		
12	D Frank	From	10 ✓	made last trip to #1 hole and cleaned up old set up and camp site. build latrine and cut more timber for set up
	H Stan	To	13 ✓	
	D John	From	10 ✓	
	H Charles	To	13 ✓	
	D Harry	From	13 ✓	
	H	To		
13	D Frank	From	13 ✓	put machine on set up and anchor down cut pads for tripod very soft ground at drill site
	H Stan	To	13 ✓	
	D John	From	13 ✓	
	H Charles	To	13 ✓	
	D Harry	From	13 ✓	
	H	To		
14	D Frank	To	13 ✓	tried to raise tripod twice chain broke off finish raising tripod and start drilling casing and start building staging on tripod
	D Stan	From	13 ✓	
	H John	To	13 ✓	
	H Charles	From	13 ✓	
	D Harry	To	13 ✓	
	D	From		
	H	To		

Foreman
Authorized Company Rep. *D. McLaughlin*

Company: <i>Central Del Rio Oil Co.</i>		LOGGING RECORD		APOLLO EXPLOSION LTD.		T.D.	
Property Location: <i>Hay River M.B.T.</i>		Date Begun:		Date Finished:			
Date	Employees	Footages	Hours	Remarks			
<i>May 15</i>	D <i>Frank</i>	From 20	14 ✓	<i>drilling casing holders & gravel</i> <i>Harry went to town to get cement and supply</i>			
	H <i>Stan</i>	To 60	14 ✓				
	D <i>John</i>	From	14 ✓				
	D <i>Charles</i>	To	14 ✓				
	D <i>Harry</i>	From	14 ✓				
	H	To					
<i>May 16</i>	D <i>Frank</i>	From 60	4 ✓	<i>drill casing to 80 ft. Shut down at noon</i> <i>took the boys to town for an out</i> <i>Charles stayed in camp to keep the beans away</i>			
	H <i>Stan</i>	To 80	4 ✓				
	D <i>John</i>	From	4 ✓				
	H <i>Charles</i>	To	12 ✓				
	D <i>Harry</i>	From	12 ✓				
	H	To					
<i>May 17</i>	H <i>no 1 shift</i>	—	—	<i>Guarding camp. cut wood build out house</i>			
<i>May 17</i>	D <i>Charles</i>	From	12 ✓				
	H	To					
<i>May 18</i>	D <i>Frank</i>	From					
	H <i>Stan</i>	To					
<i>day 18</i>	D <i>John</i>	From 80	11 ✓	<i>drill casing to 133 ft down</i>			
	H <i>Charles</i>	To 133	11 ✓				
<i>night 18</i>	D <i>Frank</i>	From 133	11 ✓	<i>drill casing to bedrock at 137 ft. Stan</i> <i>BX casing drill down to 139. BX Casing</i> <i>Broke off at 98 ft down</i>			
	H <i>Stan</i>	To 137	11 ✓				
<i>May</i>	D <i>Harry</i>	From	12 ✓				
	H	To					
	D	From					
	H	To					
Foreman		Authorized Company Rep <i>J. Mc Lure</i>					

COR Wood Buffalo 003

Company:		Hole No:	Size:	Casing:	Inclination:	T.D:
Property Location:		Date Began:	Date Finished:			
Date	Employees	Footages	Hours	Remarks		
May 19	D John	From	12	Pushed out BX casing Man hurt at 10 ⁰⁰ A.M.		
	H Charlie	To	2			
	D Frank	From	12			
	H Stan	To	12			
	D Jerry	From	16			
May 20	H	To		Charles Hironaka. Drill stop for a while drillers helps me to look after Charlie and take him to Hospital		
	D John	From	12			
	H Frank	To	12			
	D Stan	From	12			
	H Jerry	To	14			
May 21	D	From		proceed with casing and drill BX bed rock to 141 ² very hard to get through talcum sand very hard going casing sanding		
	H John	To	13			
	D Frank	From	13			
	H Stan	To	13			
	D Jerry	From	13			
May 22	H	To		drill BX casing down to 143 ft deep and AX casing to 150 ft. Start BX casing and Broche off at 68 ft down casing cut off by sand sand at a faint gone to town to get bentonite and NX casing back and find all day look broken casing but had to give it up impossible to hook them lost in the hole 12 ft of NX casing 1-NX casing that 75 ft AX casing 1-BX casing that Should be BX on T.		
	D John	From	14			
	H Frank	To	14			
	D Stan	From	14			
	H	To				
	D	From				
	H	To				
	D	From				
	H	To				
	D	From				
	H	To				
Foreman:		Authorized Company Rep. D. Mc Lennan				

CDR Wood Buffalo CO3

Company		Hole No.	Size:	Casing:	Inclination:	T.D.
Property Location:		Date Begun:	Date Finished:			
Central Del Rio Wards Buffalo Park Hay River M.M.T. oils Rkt						
Date	Employees	Footages	Hours	Remarks		
23	D John	To 30	12 ✓	phone Hay River and get permission to subside		
	Mike Jakubsky	From 19	11 ✓	Pump out hole and start a new hole 2 ft south		
	D Frank	From 19	17 ✓	on the same set-up. move drill and tripod 2 ft		
	H Stan	To 58	17 ✓	south and start new hole (Aug 17 hrs)		
24	D John	From 58	12 ✓	NX casing		
	H Mike Jakubsky	To 80	12 ✓	Spore going using mud (Aug 14 hrs)		
	D Frank	From 80	12 ✓	Stan sick for one shift		
	H Mike	To 109	17 ✓	NX casing down to 93 ft continue with AX to 109		
25	D John	From				
	Stan					
	D Frank	From				
	H Stan	To				
	D Jerry	From				
	H	To				
	D	From				
	H	To				
	D	From				
	H	To				
	D	From				
	H	To				
	D	From				
	H	To				
	D	From				
	H	To				
	D	From				
	H	To				
Foreman				Authorized Company Rep. N. W. Lund		

CIR Wood Buffalo 003

Company: *Central Del Rio Oil Co.* RECORD: *APOLLO EXPLORATION LTD.*
 Property Location: *Wood Buffalo Park* Size: Casing: Inclination: T.D.:
May River A.M.T. Date Began: Date Finished:

Date	Employees	Footages	Hours	Remarks
MAY DAY NITE	25 D John	From 109	12	drilling B.X. casing down no work night shift. Standing by went to town to get casing & fan belt
	H Stan	To 120	7	
	D Frank	From -	8	
	H Stan	To -	8	
	D Serry	From	16	
	H	To		
MAY DAY NITE	26 D John	From	8	built pads & cat walk at the drill set up Back from town with casing at 8 PM drill from 120 to 142 drill B.X. to 149 drill A.X. from 149 - 158
	H Mike	To	8	
	D Frank	From 120	18	
	H Stan	To 142	18	
	D Serry	From	18	
	H	To		
MAY DAY NITE	27 D John	From 149	12	drill BX to 149 and AX to 158
	H Mike	To 149	12	
	D Frank	From 149	12	
	H Stan	To 152	12	
	D Serry	From	16	
	H	To		
MAY DAY NITE	28 D John	From 152	15	drill AX casing to 212. Tried to loosen up BX casing. Impossible casing back off at 123 ft down impossible to fish it out Cement A.X. from 147 to 212 in bed rock
	H Mike	To 212	13	
	D Frank	From	12	
	H Stan	To	9	
	D Serry	From	16	
	H	To		
Foreman <i>J. Karami</i>		Authorized Company Rep. <i>W. H. Laver</i>		

Company: <i>Central Del Rio Oil Ltd</i>		Drilling Record		APOLLO EXPLORATION LTD.	
Property Location: <i>Wood Buffalo Park</i>		Size: <i>66-52</i>		Inclination: <i>TO</i>	
Date: <i>May 29</i>		Date Begun:		Date Finished:	
Date	Employees	Footages	Hours	Remarks	
<i>May day nite</i>	29 D John	From Cement	12	<i>Cement job 48 hrs with portland cement working around the drill while cement set lining up tripod putting more timber around the drill</i>	
	H Mike	To {	12		
	D Frank	From {	12		
	H Stan	To {	12		
	D Jerry	From	17		
<i>May day nite</i>	30 D John	From 212	12	<i>(drill core) BX from 147 ft to 212. drill AX from 212 on. Cleaned hole and drill very sticky. Bad core at 213.6</i>	
	H Mike	To 236	12		
	D Frank	From 236	12		
	H Stan	To 256	12		
	D Jerry	From	14		
<i>May night</i>	31 D John	To		<i>Cemented. got cement from Comins. Pin Point. decided to drill casing down to 256 ft down. drill B.X. casing over A.X. down to 123 ft. impossible to start A.X. casing to drill down further. Cement hole from 130 ft in casing down to 256. Cement set good above and below core at 213.6. waited for cement to set 12 hrs. sand and shale to 236 ft. core from 236 to 238 shale and small beds of rock between 238 to 240. then drill and clean hole down to 256 a lot of core missing between 246 to 292. cement the hole to try to hold the wall. hole casing in real bad. waited 12 hrs for cement to set. cement used all together. bag cement from Comins.</i>	
	H Mike	From BX 0	12		
	D Frank	To 75	12		
	H Stan	From 75	14		
	D Jerry	To 123	14		
<i>June day nite</i>	1 D John	From	12		
	H Mike	To	12		
	D Frank	From 256	12		
	H Stan	To 292	12		
	D Jerry	From	16		
Foreman: <i>J. A. Karamis</i>		Authorized Company Rep: <i>Mr. Lank</i>			

CDR Wood Buffalo 003

Company: <i>Central Det Rip Olds Ltd</i>		DRILLING RECORD		APOLLO EXPLORATION LTD.		TO:	
Property Location: <i>Hay River</i>		Size:		Casing:		Inclination:	
		Date Began:		Date Finished:			
Date	Employees	Footages	Hours	Remarks			
<i>June Day 1</i>	D John	From <i>200</i>	16	<i>drill cement from 200 to 250 ft down</i>			
	H Mike	To <i>250</i>	16				
	D Frank	From	12				
	H Stan	To	12				
	D Jerry	From	18				
	H	To					
<i>June</i>	D John	From <i>190</i>	7	<i>Cement went set between 213 to 236 waited 12 hrs for cement to set Re-cement under heavy pressure</i>			
	H Mike	To <i>240</i>	7				
	D Frank	From <i>240</i>	12				
	H Stan	To <i>292</i>	12				
	D Jerry	From	16				
	H	To					
<i>June</i>	D John	From <i>292</i>	12	<i>drill cement from 190 to 292. Cement went set between 213 to 236 and between 260 to 280</i>			
	H Mike	To <i>308</i>	12				
	D Frank	From <i>308</i>	12				
	H Stan	To <i>384</i>	12				
	D Jerry	From	16				
	H	To					
<i>June</i>	D John	From <i>384</i>	12	<i>Shale bed from 304 to 308</i>			
	H Mike	To <i>451</i>	12				
	D Frank	From <i>451</i>	12				
	H Stan	To <i>506</i>	12				
	D Jerry	From	16				
	H	To					
<i>June</i>	D John	From <i>384</i>	12	<i>Shale and small bed of rock all the way hardly any core</i>			
	H Mike	To <i>451</i>	12				
	D Frank	From <i>451</i>	12				
	H Stan	To <i>506</i>	12				
	D Jerry	From	16				
	H	To					
<i>June</i>	D John	From <i>384</i>	12	<i>very soft. Shale 460 and 471 had core at 478</i>			
	H Mike	To <i>451</i>	12				
	D Frank	From <i>451</i>	12				
	H Stan	To <i>506</i>	12				
	D Jerry	From	16				
	H	To					
Foreman: <i>J. Karamit</i>		Authorized Company Rep.		<i>D. Mc Lennan</i>			

CIR Wood Buffalo 003

Company: *Central Del Rio oil Ltd*
Wood Buffalo Park

DRILLING RECORD APOLLO EXPLORATION LTD

Size:

Casing:

Inclination:

TD

Property Location:

Date Began:

Date Finished:

Hay River M.W.T.

Date	Employees	Footages	Hours	Remarks
<i>6</i>	D <i>John</i>	From <i>506</i>	<i>12</i>	<i>very soft and shale and layers of rock all the way had core at 552 and 561</i>
	H <i>Mike</i>	To <i>550</i>	<i>12</i>	
	D <i>Frank</i>	From <i>550</i>	<i>12</i>	
	H <i>Stan</i>	To <i>555</i>	<i>12</i>	
	D <i>Harry</i>	From	<i>14</i>	
<i>7</i>	H	To		<i>Supply pump broke down repair finish repairing pump and drill rods stuck at 515 ft shale and core all the way very hard to drill. The rods broke going down and coming up every trip. some time it takes 3 hrs to put the rods down</i>
	D <i>John</i>	From <i>555</i>	<i>9</i>	
	H <i>Mike</i>	To	<i>9</i>	
	D <i>Frank</i>	From <i>555</i>	<i>15</i>	
	H <i>Stan</i>	To <i>645</i>	<i>15</i>	
	D <i>Harry</i>	From	<i>16</i>	
	H	To		
	D	From		
	H	To		
	D	From		
	H	To		
	D	From		
	H	To		
	D	From		
	H	To		
	D	From		
	H	To		
	D	From		
	H	To		
Foreman: <i>J. G. Karasni</i>				Authorized Company Rep. <i>One Laurel</i>

June day
*with**June day*
with

COR Wood Buffalo 003

Central Dist. Rec. Co. Ltd.
 Company: *Wood Buffalo* No. *2*
 Property Location: *Hay River*

DRILLING RECORD APOLLO EXPLORATION LTD.
 Size: _____ Casing: _____ Inclination: _____ TD: _____
 Date Began: _____ Date Finished: _____

Date	Employees	Footages	Hours	Remarks
DAY 7	D. John	From 640	12	<i>very soft and muddy shale and bed of rock</i> <i>Red drop 1 ft. no rock</i>
	H. Miller	To 691	12	
	D. Grant	From 691	11	
	H. Blair	To 743	11	
DAY 8	D. Henry	From	14	<i>very soft and muddy</i>
	H. Miller	To		
	D. John	From 743	12	
	H. Miller	To 783	12	
DAY 10	D. Grant	From 783	12	<i>very muddy and blocky</i> <i>Heavy 14 hrs</i> <i>very blocky red ice mostly</i>
	H. Miller	To 824	12	
	D. John	From 824	12	
	H. Miller	To 856	12	
DAY 11	D. Grant	From 856	12	<i>layers of ice very soft muddy</i> <i>Heavy 14 hrs</i> <i>light blocky ice getting harder.</i> <i>Heavy 14 hrs</i>
	H. Miller	To 907	12	
	D. John	From 907	12	
	H. Miller	To 934	12	
DAY 12	D. Grant	From 934	12	<i>very blocky, some in shale rocks</i> <i>hard to get down.</i> <i>very blocky.</i> <i>Heavy 14 hrs</i>
	H. Miller	To 974	12	
	D. John	From 974	12	
	H. Miller	To 1004	12	
DAY 13	D. Grant	From 1004	12	<i>very blocky and muddy</i> <i>Heavy 14</i>
	H. Miller	To 1040	12	
	D. John	From 1040	12	
	H. Miller	To 1074	12	

Foreman: _____ Authorized Company Rep: _____

