C.S. NOEL LAFERTE RIVER

N-15

Drilling Authority No. 422

Date Issued 13 February 1970

WELL NAME CS Koel Laforte River N-15

FIELD

Area:

LOCATION: Unit N Section 15 Grid 61-50-118-45

Latitude 61-44-56.0 Longitude 118-48-02.3

U.W.L.R. 61.74888 — 118.80063

U.W.I. 300N156150118450

Rig Release Date: 3/3/70

Status S & A

Information Release Date

CHANGE OF NAME:

DATE RECEIVED	INDEX
13/2/70	Application for a Drilling Authority.
	Well Completion Data.
	Well History Report.
5/3/70	Application to Amend a Drilling Authority.
	Application to change a Well Name.
5/3/70	Application to Abandon a Well or Suspend Drilling.
	Application to Alter Condition of a Well.
	Well History Supplement.
19/3/70	Well Completion Data.
	Work-over Report No. .....
	Application to Commingle Production before Measurement.
	Data for Back Pressure Test on Natural Gas Wells – Monograph 7 Method.
	Data for Back Pressure Test on Natural Gas Wells – Vitter's Method.
	M.P.R. – Oil – Calculations.
	New Oil Well Report.
	New Gas Well Report.
	Well Inspection Report.
	Rig Inspection Report.
	Battery Inspection Report.
	Equipment Report.
	Well Card.
	New Service Well Report.
	Monthly Water Flood Operations Report
	Monthly Water Receipts and Disposal of Fluids Report
	Logs. Large scale..... Small scale.....

IAND 52-90 (3-69)

Drilling Authority No. 422
Date Issued February 11, 197

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

WELL COMPLETION DATA

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

Well name and number C.S. Noel Laferte River N-15

Permit No. 4059 Lease No.

Canada-Cities Service Petrol. Corp. (Permittee, Licensee, Lessee) Exploratory Licence No. 1261

Same (Operator) Exploratory Licence No. Same

Location: Unit N Section 15 Grid 61° 50'N 118° 45'W

Latitude 51° 44' 56.0" Longitude 118° 48' 02.3"

From Established Reference Marker Well A 66

Universal Well Location Reference Lat 61.74888°N., Long 118.80053°W

	DATE	DEPTH
Spudded	2-25-70	
Suspended		
Resumed Operations		
Finished Drilling	Mar.1/70	1672'
Deepened		
Complete (gas/oil)		
Abandoned	3-3-70	1672'
Rig released	3-3-70	

Pool(s)

Interval(s) open to production

Elevation: Gr. 814.5 K.B. 822

Rig No. 3

Drilling Contractor Tri-City Drilling Ltd.

Contractor's Business Licence No. 675

CASING RECORD

Casing Size (Inches)	Grade	Weight	Amount	Set at –	Sacks of Cement and Additives
1. 7"	J-55	17#	209	205'	75 sks + 2% CaCl
2.					
3.					
4.					
5.					
6.					

GEOLOGICAL TOPS	ELEVATION Depths Samples	~~XXXXXX~~ E-log
Fort Simpson Shale	Sfce	Sfce
Black Shale	1030	1031
Lonely Bay	1265	1264
Bear Rock Dolomite	1370	1380
Bear Rock Anhydrite	1444	1444
Precambrian	1668	1668

CORE RECORD

From	To	Rec.	From	To	Rec.
None					

LOG RECORD

Run No.	Type of Log	From	To
	Induction Electrical	1675	205
	BHC Sonic	1674	205
	Micro log Caliper	1675	205
	Velocity	1674	205

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

CEMENTING RECORD (Plug, Squeeze, etc.)				PERFORATING RECORD (Bullet, Jet)				SERVICING RECORD (Acidizing, Fracing, etc.)			
Date	From	To	Remarks	Date	From	To	Remarks	Date	From	To	Remarks
			+ 2% $CaCl_2$								
3-2-70	1550	1350	55 sks./ tagged plug .	Felt @ 1320'							
3-2-70	260	160	27 sks. tagged plug .	Felt @ 150'							
3-3-70	21	3	5 sks.								
			Welded on steel plate and 4' marker and well name								

MAR 31 1970

DRILL STEM TESTS

No.	Date	Formation	From	To	V.O. Mins.	I.S.I. Mins.	F.S.I. Mins.	I.S.I.B.H.P.	F.S.I.B.H.P.	I.F.B.H.P.	F.F.B.H.P.	I.H.P.	F.H.P.	REMARKS
1	3-2-70	Bear Rock	1370	1450	60	30	60	608	526	18	30	655	655	Recovered 10' drilling mud
								FIELD PRESSURES REPORTED						

ANALYSIS

Lab. No.	Sample	From	To	Source	Remarks

PRESENT STATUS OF WELL

Oil		(Interval.)
Gas		(Interval.)
Dry		
Abandoned		3-3-70
Susp.		

Company: Canada-Cities Service Petroleum Corporation

Signed by: [illegible]

Title: District Engineer

Date: March 19, 1970

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

File No. .....

Drilling Authority No. 422

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

RESOURCE MANAGEMENT DIVISION

Application to Amend a Drilling Authority

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

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made to amend Drilling Authority No. 422, concerning

CS Noel Laferte River N-15

(Name and Number of Well)

The following amendments are required:

Latitude should be 61°44'56.0" N

Longitude should be 118°48'02.3" W

instead of 61°44'55" N

and 118°48'02" W

Reasons for the amendments: The well location was surveyed by a certified land surveyor and the estimated location based on seismic survey was slightly out. We are enclosing three (3) copies of the final plan for this well location.

Dated at Calgary, this 3 day of March, 19 70

Signed by Robert Gradey

Title Vice-President, Manager of Operations

Company Canada-Cities Service Petroleum Corporation

(For Resource Management Division use only)

APPROVED

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

UNIVERSAL WELL LOCATION REFERENCE: Lat. 61.74888° N.
Long. 118.80063° W.

Date 5th March, 19 70

Oil Conservation Engineer

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

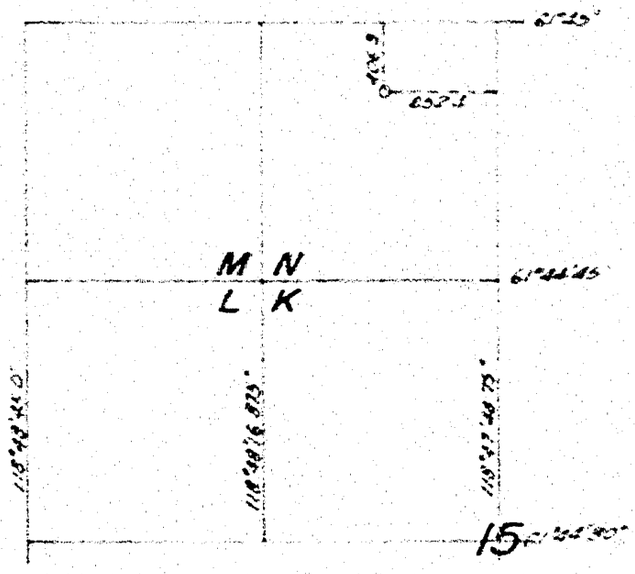
IAND 52-90-3 (3-67)

CS NOEL LAFERTE RIVER N-15

Unit N Sec. 15 Grid Area 61°50'; 118°45'

Lat. 61°44'56.0" Long. 118°48'02.3"

NORTHWEST TERRITORIES



Scale 1000 to 1"

Certified Correct. March 3rd 1970

Dominion and Alberta Land Surveyor
DABBS CONTROL SURVEYS LTD.

CANADA-CITIES SERVICE
PETROLEUM CORPORATION

ELEVATION: 815 Ground

CO-ORDS: 406.3 S. of N.E. Cor } Unit N
652.4 W. of N.E. Cor }

Well N-15 surveyed from Well A66

DATUM: Ground at
A-66
Elev. 823.0

70-37

File No.
Drilling Authority No. 422

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

Application to Abandon a Well [redacted]

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

Name and number of well CS Moal Laferte River M-15

Location: Unit N Section 15 Grid 61°50', 118°45'

Latitude 61°44'56.0" Longitude 118° 48' 02.3"

From Established Reference Marker

Universal Well Location Reference

Permit No. 4059 Lease No.

Canada-Cities Service Petroleum Corporation
(Permittee, Licensee, Lessee)

Date of commencement of proposed program March 2, 1970

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at None

Gas at None

Water at None

Total Depth 1672 Date of last operations March 3, 1970

Present condition of well

Abandonment Under Progress

VERBAL APPROVAL Received From Mr. G. Blue

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1. 7"	17#		210	75 sx. plus 2% $CaCl_2$	Nil
2.					
3.					
4.					
5.					

PROPOSED ABANDONMENT PROGRAM

Plug No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1	1350-1550	Lonely Bay	54	Tagged at 1320' after 6 hrs.
2	160-260	Surface casing	27	Will tag after 6 hrs.
3	weld monument	Surface with well name plate	5	

The following logs have been run IES, B.H.C.-Sonic - GR, Micro-Caliper Velocity

Other operations proposed None

Operations to be carried out by Tri-City Drilling Ltd. Contractor Licence No. 675

Address 14305-120th Ave. Edmonton, Alberta Address

Responsible Agent in field B.B. Edwards, Box 89 Drayton Valley, Alberta

Dated at Calgary, this 3 Day of March 19 70

Signed by Robert Grady Company Canada-Cities Service Petroleum Corporation

Title Vice-President-Manager of Operations Operator's Exploratory Licence No. 1261

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

(For OIL AND MINERAL DIVISION use only)

APPROVAL

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

1. Confirming oral approval given by Mr. G. E. Blue on the 2nd March 1970.

Dated 5th March, 19 70

Oil Conservation Engineer

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

POOR COPY

Drilling Authority No. 422

Project No.

File No.

CANADA

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

Application for a Drilling Authority

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

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

Name and number of well CS Noel Laferte River N-15

Location: Unit N Section 15 Grid 61°50'N Lat., 118°55' W Long.

Latitude 61°44' 55" N Longitude 118°48'02" W

Unique Well Identifier [illegible]

Universal Well Location Reference 61.74860° N Lat., 118.80055 W Long.

Elevation: Ground 821 (Est) K.B. 829 (Est) feet above sea-level.

Well is expected to produce from Devonian Carbonates formation at a depth of about 1090 feet. Expected total final depth 1700

Area assigned to well

(for Oil Conservation Engineer's use only)

Permit No. 4059 Lease No. Acreage 60,622

Permittee, licensee, or lessee Canada-Cities Service Petroleum Corporation

Exploratory Licence No. 1261

Surface owned by Crown or Crown

(If alienated submit name and address of owner and company.)

Petroleum and natural-gas rights owned by Crown

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

Casing Size O.D. (Inches)	Weight (Lb./Ft.)	Grade	New or Used	Estimated Depth	Sacks of Cement
1. 7"	17#	J.55	New	200	75
2. 4½"	9.5#	J.55	New	1700	130
3.					
4.					
5.					

Expected water, gas, and oil horizons and type of control equipment All fluid bearing horizons encountered will be controlled by bentonitic base drilling fluid, weighted with barite if required. BOP's Double Shaffer 8" series 600, & 8" Series 600 Hydril.

Well will be drilled with Rotary Rig No. 3 by Tri-City Drilling Ltd.
(Drilling Contractor or company)

14305 - 120th Avenue, Edmonton, Alberta.

Responsible agent of applicant:— Contractor's business Licence No. 675

At well B.R. Edwards At registered office R.A. Grady

Address P.O. Box 89, Drayton Valley Address P.O. Box 2727 Calgary, Alberta.

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

Dated at Calgary, this 12 day of February 19 70

Signed by Robert A. Grady Company Canada-Cities Service Petroleum Corporation

Title Vice-President, Manager of Operations Operator's Licence No. 1261

(For Oil and Mineral Division use only)

APPROVED

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

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

Dated 13th February 19 70 Please see over page

Oil Conservation Engineer

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

IAND 52-90-1 (3-69)

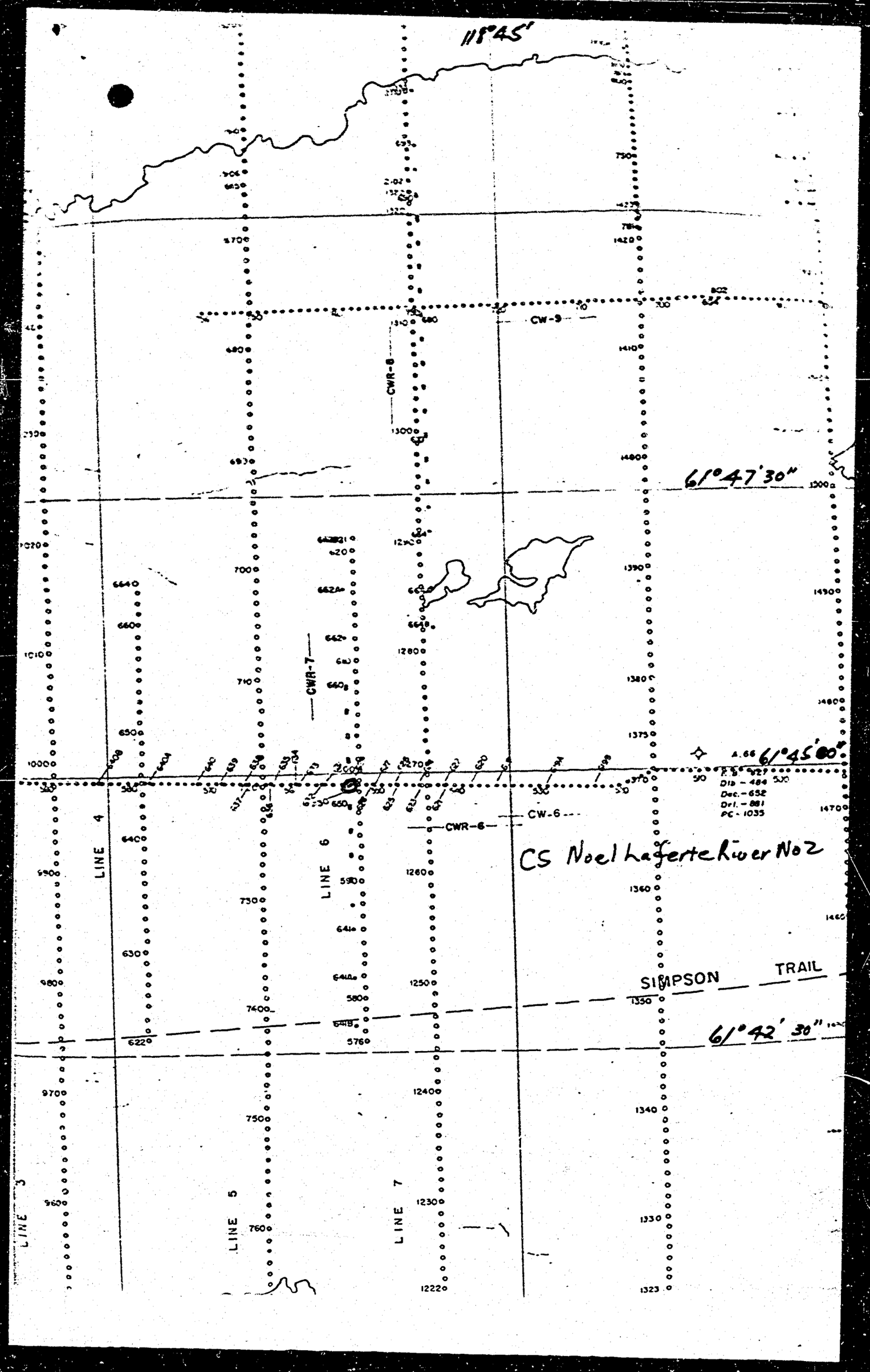
that drilling fluids, chemicals and wastes shall be disposed of or contained in a manner that will prevent the contamination of adjacent vegetation and surface or sub-surface waters.

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

4. Surface casing must be set at least 75 feet into a competent formation.

B.H.J. Thoms

B.H.J. Thoms, Oil Conservation Engineer


118°45'
CW-9
CWR-8
61°47'30"
CWR-7
61°45'00"
A.66
F.B. 929
Dib - 484
Dec. - 652
Drl. - 881
PC - 1035
CW-6
CWR-6
CS Noel Lafferte River No 2
LINE 4
LINE 6
SIMPSON TRAIL
61°42' 30"
LINE 3
LINE 5
LINE 7

WELL HISTORY REPORT

CS NOEL LAFERTE RIVER N-15

61°44'5½" N., 118°48'02.3" W.

WELL HISTORY REPORT

CS NOEL LAFERTE RIVER N-15

61°44'56" N., 118°48'023W.

OIL & GAS OPERATIONS UNIT
Oil and Mineral Division
MAY 1 1970
OTTAWA, CANADA
Dept. of Indian Affairs & Northern Development

I N D E X

Summary of Well Data ..... Page 1

Geological Summary ..... Page 1

Engineering Summary ..... Page 2

Logs ..... Page 3

WELL HISTORY REPORT

SUMMARY OF WELL DATA:

Well Name: CS NOEL Laferte River N-15

Permittee: Canada-Cities Service Petroleum Corporation

Operator: Canada-Cities Service Petroleum Corporation
P.O. Box 2727, Calgary 2, Alberta

Location: 61°44'56" N., 118°48'02.3"W. Unit J; Sec.03; Grid 61°50'118°45'
* Universal Well Location Reference: Lat. 61.74888° N.
Long. 118.80063° W.

Permit Number: 4059

Drilling Contractor: Tri City Drilling (1968) Ltd.
Rig #3, Type - Failing 2500

Drilling Authority: 422, Issued February 13, 1970

Classification: Wildcat

Elevations: Ground - 814.5 KB - 822

Spud Date: Wednesday, February 25, 1970

Completed Drilling: Sunday March 1, 1970

Total Depth: 1672 (- 850)

Status: D & A

Rig Released: March 3, 1970

Hole Size: 9 7/8" to 210' - 6¼" to 1672 (TD)

Casing: 7 joints 7" 17#/ft. J-55 to 205'

* Unique Well Identifier - 300N156150118450

GEOLOGICAL SUMMARY:

Tops:

Formation	Samples	E-Log
Ft. Simpson Shale	Surface	Surface
Black Shale	1030	1031
Lonely Bay	1265	1264
Bear Rock Dolomite	1370	1380
Bear Rock Anhydrite	1444	1444
Pre-Cambrian	1668	1668

Cores: None Cut

Sample Description:

Surface to 1030:	Shale, light green, calcareous, hard with occasional trace of argillaceous limestone.
1030 - 1265:	Shale, black, brown streak, bituminous, occasionally very pyritic.
1265 - 1370:	Limestone, tan/cream, micritic, tight, occasionally crinoidal.
1370 - 1444:	Dolomite, micritic to microcrystalline, trace very fine crystalline, trace porosity, and live oil staining from 1390 to 1440.
1444 - 1668:	Anhydrite, grey/tan, dense/occasional stringers of shale, "apple" green, non-calcareous.
1668 - 1672:	Granite, pink, green, translucent quartz crystals.

ENGINEERING SUMMARY:

Drill-Stem Tests:

DST #1: Interval 1367 - 1450 (80')
Type: Bottom Hole Straddle Bypass

WAB - Preflow 5 min.
30 min ISI 608 IF 18
60 min FSI 526 Field pressures reported
IHP 655 FHP 655
VO 60 minutes.
Recovered 10 feet drilling mud.

Casing Record:

7 joints 7" 17# J-55 ST&C cemented with 75 sxs construction cement 2% CaCl and landed at 205'.

Bit Record:

No.	Type	Size	Hours on Bottom	Footage
1A	HW OSC-3	9 7/8"	14	210
1	HW OSC-3	6 1/4"	18	1034
2	HW OSC-16	6 1/4"	14 3/4	215
3	HW OSC-16	6 1/4"	11 1/2	81
4	HW OWV	6 1/4"	12 3/4	132
				1672

Mud Report:

Used water to 1600 feet
Used gel and water from 1600 to 1672 (TD)
(1600 lbs. gel and 50 lbs. caustic soda)

Deviation Record:

123'	1/2°
210'	1/4°
723'	1/2°
1122'	3/4°
1672'	1/2°

Plugs:

#I: 1350 - 1550 (200) 55 sx. cement
2% Ca, Felt at 1320'.

#II: 160 - 260 (100) 27 sx. cement
2% Ca, Felt at 150'.
5 sx. cement on top and welded plate

Lost Circulation Zones:

N/A

Blowouts:

N/A

Logs: February 28, 1970

Induction Electric Log	205 - 1675
Borehole Compensated Sonic Log	205 - 1674
Microlog Caliper	205 - 1675
Velocity Survey	205 - 1674'

K. P. Haugan,
Chief Geologist,
March 17, 1970.

TECHNICAL REPORT

JOHNSTON

Johnston Testers

TEST DATA

Formation		Zone Thickness			Ft
Interval	1367 To	1450	TD	1672	Ft
Type of Test	OPEN HOLE, STRADDLE, CONVENTIONAL.				
Time Started in Hole	1045 Hrs	Tool Opened		1243 Hrs	
First Flow	5 Min	Initial Shut-In		30 Min	
Second Flow	60 Min	Second Shut In		Min	
Third Flow	Min	Final Shut In		60 Min	
Pulled Loose at	1525 Hrs	Out of Hole		1700 Hrs	
Wt. Set on Packer	20,000 #	Pulled Loose Wt.		10,000 #	

Description of Blow During Test

VERY WEAK AIR BLOW, DEAD IN 15 MINUTES.

FLUID RECOVERY Was Test Reverse Circulated Yes ☐ No ☒

Total Fluid Recovered 10 Ft

Description of Fluid Recovered

10' DRILLING FLUID.

GAS BLOW MEASUREMENT

Measured With ID Riser

Type of Instrument

Time	Size Choke	Reading pressure inches	M Cubic Feet Day
		NIL	

REMARKS TEST SATISFACTORY.
TRANSIENT FILTRATION CURVE ON BOTH SHUT-INS.
NO CHARGE FOR SHUT-IN.

	RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@	°F.	ppm.
Mud Pit sample filtrate	@	°F.	ppm.

TOOL SEQUENCE

Tool	Length	O.D
P.O. SUB	.70	
D.P. SUB	.80	
MFE TOOL	9.10	
BYPASS TOOL	3.00	
JARS	6.90	
SAFETY JOINT	1.75	
S.S. & PACKER	8.70	5 1/2"
T.C. & PACKER	4.90	5 1/2"
TOTAL	35.85	
STUB.	1.20	
PERF.	10.00	
RECORDERS (2)	8.80	
SUB	.75	
DRILL COLLARS	58.20	
SUB	.75	
T.C. & STUB.	3.10	
TOTAL INTERVAL	82.80	
PACKERS	8.80	5 1/2"
BLANK SUB	.75	
RECORDER	4.40	
PERF.	21.00	
SUB	.75	
DRILL PIPE	183.87	
SUB	.75	
B.N. & PERF.	2.00	
TOTAL BELOW INTV.	222.32	
TOTAL LENGTH	340.97	

Elevation NOT REPORTED.

Bottom Hole Choke Size 1/2"

Fluid Cushion Type NIL Amt

MUD AND HOLE DATA

Mud Type W.L.

Filter Cake 2/32 Visc. 42 Wt. 8.7

Time Taken

Contractor TRI-CITY DRLG. Rig No. 3

Drill Pipe Size 3 1/2 IF

Drill Collar Size 2 3/8 ID Length 322.11'

Main Hole Size 6 1/4"

Rat Hole Size

District HIGH LEVEL Ticket No. D 03847 Date MARCH 2, 1970 Test No. 1 J.T. No. 1

Company CANADA-CITIES SERVICE PETROLEUM CORP. Address 1100 CALGARY HOUSE

Well Name CS NOEL LAFERTE RIVER N-15 CALGARY 1, ALBERTA

Number 61° 44'56" 118° 48'02.3" Field WILDCAT Province NORTH WEST TERRITORIES

Formation Co. Rep. C. JASMAN (CONSULTANT)

and Interval 1367 - 1450 DST#1 Technician D. CLIFTON

Distribution of Reports

8 - CALGARY.

JOHNSTON TESTERS 321 50th AVENUE S.E. · CALGARY 24, ALBERTA · PH. 255-1151

A DIVISION OF SCHLUMBERGER CANADA LIMITED

D 03847

PRESSURE DATA

INSTRUMENT No.		AK1-2594	AK1-2115	AK1-2091
CAPACITY psig		4450	4600	7000
INSTRUMENT DEPTH FT		1378	1382	1460
INSTRUMENT OPENING		OUTSIDE	OUTSIDE	OUTSIDE
PRESSURE GRADIENT psi/FT				
WELL TEMP °F 69				
INITIAL HYDROSTATIC	A	649#	648#	675#
FIRST FLOW	B	20#	20#	
	B-1	20#	20#	A-1 876#
INITIAL SHUT-IN	C	625#	623#	
SECOND FLOW	D	24#	23#	
	D-1	29#	28#	RAN BELOW
SECOND SHUT-IN	E			STRADDLE
THIRD FLOW	F			
	F-1			A-2 966#
FINAL SHUT-IN	G	511#	511#	
FINAL HYDROSTATIC	H	649#	648#	675#

FLUID SAMPLE REPORT

Sample No. 556

Type

Depth 1341.75 ft.

Volume 2500 c.c.

Sample Pressure: psig. at Surface

Gravity API @ °F

Gas Oil Ratio Cu.Ft./bbl.

Recovery:

Cu. Ft. Gas

cc Oil

cc Water

cc Mud

Total Liquid cc

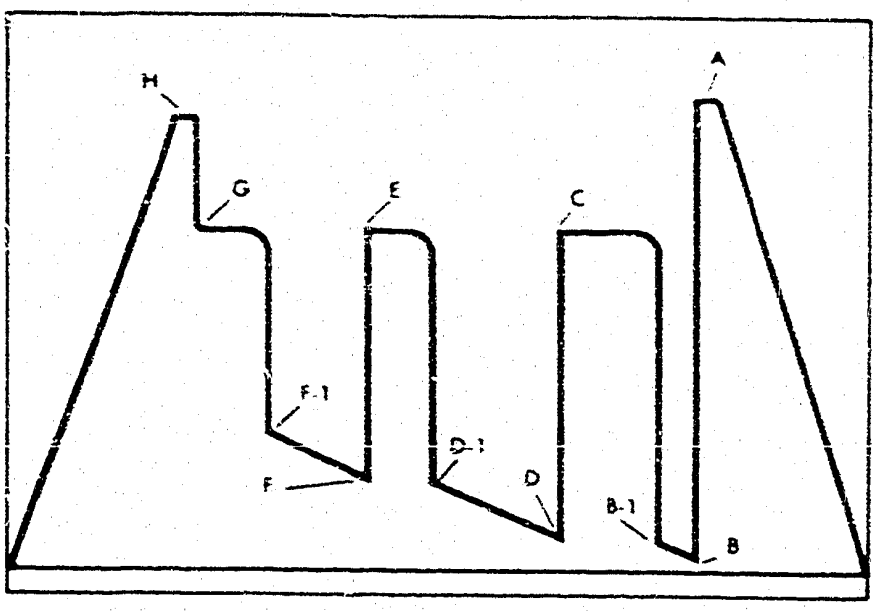
REMARKS:

PRESSURE INCREMENTS

POINT MINUTES	PRESSURE	$\frac{T + \Delta T}{\Delta T}$	POINT MINUTES	PRESSURE	$\frac{T + \Delta T}{\Delta T}$	POINT MINUTES	PRESSURE	$\frac{T + \Delta T}{\Delta T}$

JOHNSTON TESTERS

GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS



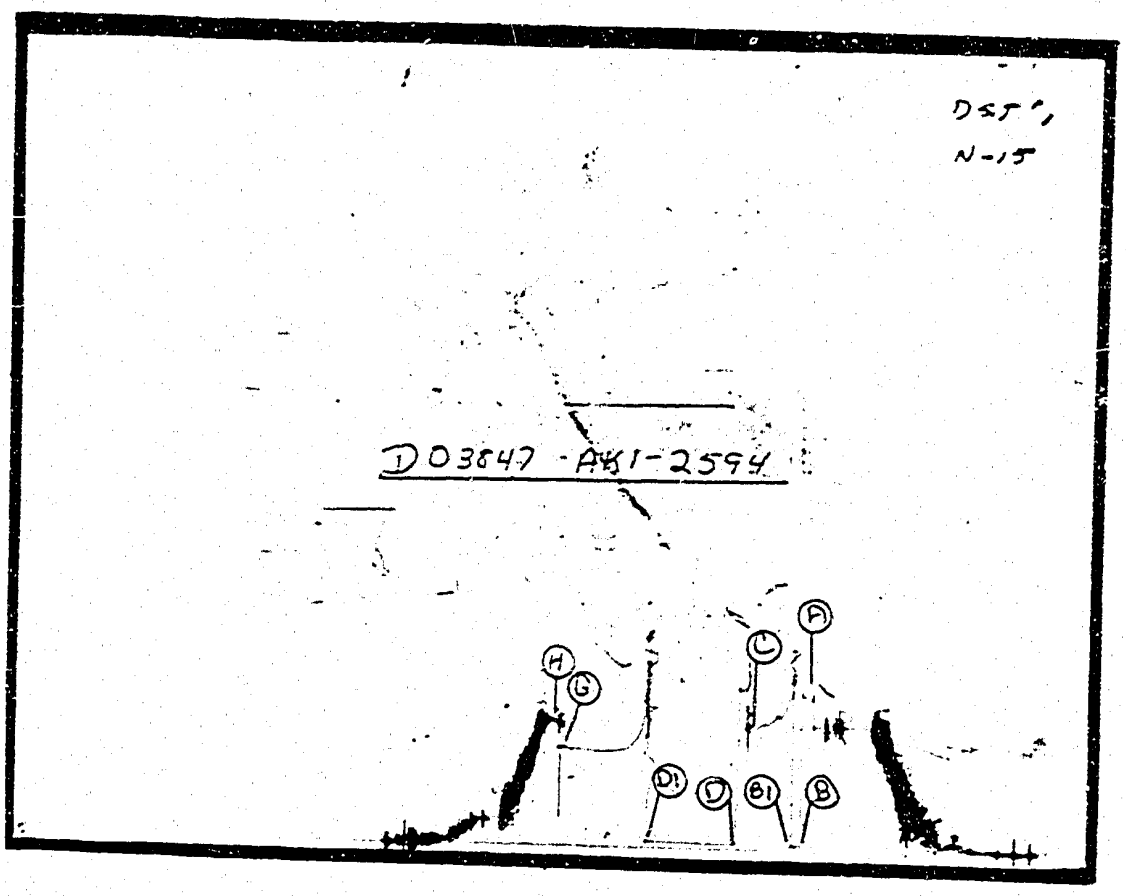
A. Initial Hyd. Mud
B. First Flow
C. Initial Shut-In
D. Second Flow
E. Second Shut-In
F. Third Flow
G. Final Shut-In
H. Final Hyd. Mud

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

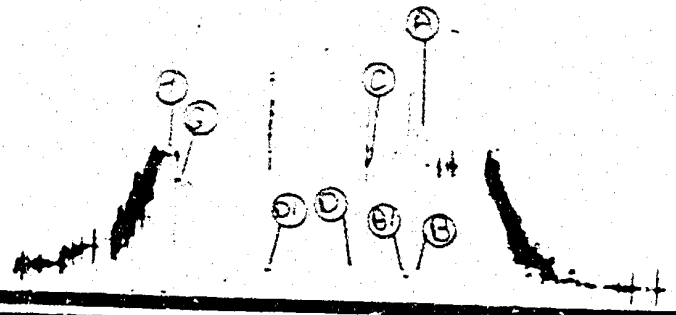
A-1, A-2, A-3, etc. Initial Hyd. Pressures
B, B-1, Initial Flow Pressures
C, Initial Shut-In
D-1, D-2, D-3, etc. Second Flow Pressures
E, Second Shut-In
F, F-1, F-2, Third Flow Pressures
G, Final Shut-In
H, Final Hyd. Pressures
Z — Special pressure points such as pumping pressures recorded for formation breakdown.

JOHNSTON TESTERS

FIELD REPORT NO	RECORDER NO	CAPACITY	REPORTS REQUESTED
D 03847	AK1-2594	4450	8



D03847 AK1-2115



D03847 AK1-2091

Ran Below Straddle

CS NOEL LAFERTE RIVER N-15

D.A. 422 - Tour Reports

OPC 17

CANADA CITIES SERVICE PETROLEUM CORPORATION

DAILY DRILLING REPORT

Lease & Well No. C.S. NOEL LAFERT. Location RIVER. 118° 48' 02" W 15-61-44-55W Province N.W.T.

Contractor TRI-CITY DRLG. RIG #3 Date MARCH 3 1970.

Depth at 8 AM T.D. 1672 4 PM Midnight

Driller's 12-8A E. DUPERRON 8A-4P R. RIZZOL 4P-12 DOUG JOHNSON

FORMATION RECORD

FROM	TO	FORMATION
12:00	2:00	W.O.C.
2:00	2:30	RUN IN FEEL PLUG #1 @ 1320 ft.
2:30	3:15	PULL UP + RUN PLUG #2.
3:15	8:00	W.O.C.
8:00	10:00	FEEL PLUG #2 @ 150', LAY DOWN PIPE, CEMENT TOP CASING W/ 5 SXS
10:00	11:00	CEMENT AND WELD ON PLAT W/ MARK ABOVE GRD.

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT

DRILL PIPE TRIPS

DEPTH	REASON

MUD RECORD

TOUR	TIME	CHARACTERISTICS WEIGHT	VIS.-SEC.	CC WL	CONDITIONERS AMOUNT	KIND
1						
1	RIG	RELEASED	@ 11:00	A.m	MARCH 3/70	
1						
2				Cliff Jasman		
2						
2						
3						
3						
3						

SIZE HOLE PUMP PRESSURE MIDNIGHT DRILL PIPE WT. MIDNIGHT

CORE AND D.S.T. RECORD

CORE NO.	FROM	TO	RECOVERY	DRILLING TIME-MIN.	SIZE BIT	KIND	FORMATION	SHOWING

D.S.T. NO.	FROM	TO	TIME MIN.	FORMATION	RECOVERY AND REMARKS

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE F. COLLAR	MAKE SHOE	TALLY	CEMENTED AT	SACKS	KIND CEMENT

NOTE: (Attach Casing and Drill Stem Test Reports When Applicable)

Remarks: RUN PLUG #2 160 - 260 - 100' CEMENT W/ 27 SXS + 2% CACL.
WELD PLAT ON TOP CASING 3' BELOW SURFACE

SIGNATURE Cliff Jasman

OPC 17

CANADA CITIES SERVICE PETROLEUM CORPORATION

DAILY DRILLING REPORT

Lease & Well No. C.S. NOEL LAFERTE Location N-15 (MNGR 118° 48' 02" W, 61° 44' 55" N) Province N.W.T.

Contractor TRI-CITY DRILLING RIG #3 Date MARCH 2/70

Depth at 8 AM T.D 1672 4 PM T.D. 1672 Midnight 1672

Driller's 12-8A Eddy Duperron 8A-4 P Robert Rizzoli 4 P-12 Doug Johnson

FORMATION RECORD

FROM	TO	FORMATION
12:00	2:30	Run. Velocity surveys.
2:30	8:00 A.M.	WAIT on TESTER.
8:00	9:00	HOIST TO TEST, 3:30 4:00 HOIST PACKER ½ hr.
9:00	7:00	MAKE UP TEST TOOL NO 1 + RBA in Seame + TESTING + HOIST
7:00	8:00	RUN IN OPEN ENDED AND RUN PLUG #1 1350-1550-200'
8:00	12:00	W.O.C.

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT

DRILL PIPE TRIPS

DEPTH	REASON

MUD RECORD

TOUR	TIME	CHARACTERISTICS WEIGHT	VIS.-SEC.	CC WL	CONDITIONERS AMOUNT	KIND
1						
1						
1						
2	8:00	8.7	40			
2						
2	8:00	8.7	40			
3						
3						
3						

SIZE HOLE 6 1/4 PUMP PRESSURE MIDNIGHT DRILL PIPE WT. MIDNIGHT

CORE AND D.S.T. RECORD

CORE NO.	FROM	TO	RECOVERY	DRILLING TIME-MIN.	SIZE BIT	KIND	FORMATION	SHOWING

D.S.T. No.	FROM	TO	TIME MIN.	FORMATION	RECOVERY AND REMARKS
1					

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE F. COLLAR	MAKE SHOE	TALLY	CEMENTED AT	SACKS	KIND CEMENT
7"	17#	JAPAN		BAKER	205' K.B.			

NOTE: (Attach Casing and Drill Stem Test Reports When Applicable)

Remarks: RUN PLUG #1 1350-1550-200' CEMENT w/ 55 SXS + 2% CACL.
PLUG DOWN @ 8:00 P.M
D.S.T #1 INTERVAL 1370'-1450'-80'.
BTM. HOLE PAUL STRADDLE BY PASS. VERY WEAK AIR BLOW ON PREFLOW.
VERY WEAK AIR BLOW WHEN TOOL WAS OPENED AND DEAD IN 15 MINS
I.S.I.-30 MINS F.O. 60 MINS F.S.I.-30 MINS. I.H.P. 655# I.F.P.-18# F.F.P. 30#
ISIP-608# FSIP-526# FHP-655#
REC'D 10' DRILLING MUD.

SIGNATURE Cliff Jamman

OPC 17

CANADA CITIES SERVICE PETROLEUM CORPORATION

DAILY DRILLING REPORT

Lease & Well No. C.S. Noel LaFerte Location N-15 River 118° 48' 02" 61° 44' 55" N Province N.W.T

Contractor TRI-CITY DRILLING Rig #3 Date MARCH 1/70

Depth at 8 AM 1672' 4 PM 1672 Midnight T.D 1672

Driller's 12-8A E. Duperron. 8A-4P R. Rizzoli 4 F-12 E. DUPERRON

FORMATION RECORD

FROM	TO	FORMATION
12:00	6:45	DRLG 6¼" Hole + mud up.
6:45	8:00	SURVEY AND Hoist TO LOG
8:00	4:00	LOGGING
4:00	12:00	LOGGING

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT
1672.	½.	SURE-SHOT.

DRILL PIPE TRIPS

DEPTH	REASON
1672	T.D + TO LOG.

MUD RECORD

TOUR	TIME	CHARACTERISTICS WEIGHT	VIS.-SEC.	CC WL	CONDITIONERS AMOUNT	KIND
1	6:00	9.0	42		CAUSTIC	50#
1					QCL	1500#
1						
2						
2						
2						
3						
3						
3						

SIZE HOLE 6¼ PUMP PRESSURE MIDNIGHT 550.lbs. DRILL PIPE WT. MIDNIGHT 37,000

CORE AND D.S.T. RECORD

CORE NO.	FROM	TO	RECOVERY	DRILLING TIME-MIN.	SIZE BIT	KIND	FORMATION	SHOWING

D.S.T. NO.	FROM	TO	TIME MIN.	FORMATION	RECOVERY AND REMARKS

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE F. COLLAR	MAKE SHOE	TALLY	CEMENTED AT	SACKS	KIND CEMENT

NOTE: (Attach Casing and Drill Stem Test Reports When Applicable)

Remarks: BIT # 4, 6¼ DWV, 2165, H.W. 5 20,000# RPM 110 FT DRLD 132 HRS 12¾ COND 5.1I

Run I.E.S 1675' - 205' SURFACE CASING 2" + 5" SCALE
Run B.H.C. SONIC-G.R. 1674'-1200' 2" + 5" SCALE 40-60-80 SEC.
1200'-205' 2" + 5" SCALE 40-90-140 SEC.
Run MICROLOG-CALIPER 1675'-205' 5" SCALE
Run VELOCITY SURVEY.

SIGNATURE Cliff Jarman

OPC 17

CANADA CITIES SERVICE PETROLEUM CORPORATION

DAILY DRILLING REPORT

Lease & Well No. G.S. Noel Lafferty River Location N-15 118°48'02" 61°44'55"N Province N.W.T.

Contractor Tri-City Drilling Rig #3 Date Feb 28/70

Depth at 8 AM 1486 4 PM 1532. Midnight 1612

Driller's 12-8A D. Johnson 8A-4P L. Dupuisson 4P-12 Robert Bizzoli

FORMATION RECORD

FROM	TO	FORMATION
12:00	2:00	Drilling
2:00	6:30	Trip + Repairing
6:30	8:00	Drilling
8:00	4:00	Drilling 6¼ Hole..
4:00	5:00	Drill a 6¼ Hole
5:00	7:00	Trip for Bit
7:00	12:00	Drill 6¼ Hole

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT

DRILL PIPE TRIPS

DEPTH	REASON
1459	For Bit.
1540	For Bit

MUD RECORD

TOUR	TIME	CHARACTERISTICS WEIGHT	VIS.-SEC.	CC WL	CONDITIONERS AMOUNT	KIND
1	6:00	8.4	28			
1						Water
1						
2	4:00	8.6	28			
2						
2						
3	6:00	8.5	28			
3						
3	12:00	8.6	28			

SIZE HOLE 6¼" PUMP PRESSURE MIDNIGHT 500# DRILL PIPE WT. MIDNIGHT 37 m

CORE AND D.S.T. RECORD

CORE NO.	FROM	TO	RECOVERY	DRILLING TIME-MIN.	SIZE BIT	KIND	FORMATION	SHOWING

D.S.T. No.	FROM	TO	TIME MIN.	FORMATION	RECOVERY AND REMARKS

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE F. COLLAR	MAKE SHOE	TALLY	CEMENTED AT	SACKS	KIND CEMENT

NOTE: (Attach Casing and Drill Stem Test Reports When Applicable)

Remarks: Bit 2 OSC-1-G R.P.m 100 wt 20 m 215' 14¾ hrs T-6 B-8 In Gage
Rig Serv. + B.O.P. check. motor shut off.
Bit #3 OSC-1G R.P.M. 110, wt 25,000 81', 11½ hrs, Coun (T.B.G. 5.3)

SIGNATURE Cliff Jarman

OPC 17

CANADA CITIES SERVICE PETROLEUM CORPORATION

DAILY DRILLING REPORT

Lease & Well No. C'S NOEL LAFERTERIVER Location N-15 61°44, 55-N 118° 48 02.W, Province N.W.T.

Contractor TRI CITY DRLG DRILLING Rig #3 Date FEB 27/70

Depth at 8 AM 1244 4 PM 1346. Midnight 1450'

Driller's 12-8A D. JOHNSON 8A-4 P E. Duperron. 4 P-12 ROBERT RIZZOLI

FORMATION RECORD

FROM	TO	FORMATION
12 00	8.00	DRLG 6¼ HOLE SURVEY 1122 ¾° DRL FROM 938 to 1244
8.00	10:15	DRIP + RIG SERV. B.O.P CHECK
10:15	4.00	DRILL 6¼ HOLE.
4.00	9.00	SERV. R.G ½ hr DRILG 6¼ HOLE
9.00	9 30	PUMP OUT SUMP & DISPLACE HOLE
9 30	12 00	DRILG 6¼ HOLE

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT
1122	¾	SURE SHOT

DRILL PIPE TRIPS

DEPTH	REASON

MUD RECORD

TOUR	TIME	CHARACTERISTICS WEIGHT	VIS.-SEC.	CC WL	CONDITIONERS AMOUNT	KIND
1	6 AM	8.8	WATER			
1						
1						
2	4 p.m	8.9	WATER			
2						
2						
3	12:00	8.4	WATER			
3						
3						

SIZE HOLE 6¼. PUMP PRESSURE MIDNIGHT 450 lbs. DRILL PIPE WT. MIDNIGHT 35,000.

CORE AND D.S.T. RECORD

CORE NO.	FROM	TO	RECOVERY	DRILLING TIME-MIN.	SIZE BIT	KIND	FORMATION	SHOWING

D.S.T. No.	FROM	TO	TIME MIN.	FORMATION	RECOVERY AND REMARKS

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE F. COLLAR	MAKE SHOE	TALLY	CEMENTED AT	SACKS	KIND CEMENT

NOTE: (Attach Casing and Drill Stem Test Reports When Applicable)

Remarks: BIT N.#1 6¼ HW, OSC-3. IN AT 210 out at 1244. HOLE made 1034 ft. WT on BIT 22,000 R.P.M. 120. CONDITION. 5 TEETH. BAILINGS ~~tooth~~ gAGE ~ good. HRS RUN. 18 hr.

PIPE STRAP. 1245.92 MEASURE OUT ON BIT #1
BOARD. 1254.53
DIFF. 1.32

SIGNATURE Cliff Jasman

OPC 17

CANADA CITIES SERVICE PETROLEUM CORPORATION

DAILY DRILLING REPORT

Lease & Well No C.S. Ucel LaFerte River Location N-15 61° 44' 55" - N 118° 48' 02" - W Province N.W.T.

Contractor Tri-City Drilling Ltd Date Feb 26/70

Depth at 8 AM 210' 4 PM 423 ft. Midnight 938'

Driller's 12-8AM Johnson 8A-4P L. Duperron. 4P-12 Robert Rizzi

FORMATION RECORD

FROM	TO	FORMATION
12:00	8:00	W.O.C Heading up B.O.Ps
8:00	12:45	Heading up B.O.P. Press. up. + Drill out.
12:45	4:00	Drill 6¼ Hole.
4:00	12:00	Serv. Rig ½ hr. Run Surv. ½ hr Drilg 6¼ Hole 7½ hrs

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT
723	½	Sure Shot

DRILL PIPE TRIPS

DEPTH	REASON

MUD RECORD

TOUR	TIME	CHARACTERISTICS WEIGHT	VIS-SEC.	CC WL	CONDITIONERS AMOUNT	KIND
1			WA			
1						
1						
2			WATER.		100 lbs.	BYCARB.
2	3:00 PM	8.5.	32.			
2						
3	4:00	8.5	28		WATER	
3	8:00	8.5	28			
3	12:00	8.5	28			

SIZE HOLE 6¼ PUMP PRESSURE MIDNIGHT 400# DRILL PIPE WT. MIDNIGHT 32 m

CORE AND D.S.T. RECORD

CORE NO.	FROM	TO	RECOVERY	DRILLING TIME-MIN.	SIZE BIT	KIND	FORMATION	SHOWING

D.S.T. No.	FROM	TO	TIME MIN.	FORMATION	RECOVERY AND REMARKS

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE F. COLLAR	MAKE SHOE	TALLY	CEMENTED AT	SACKS	KIND CEMENT

NOTE: (Attach Casing and Drill Stem Test Reports When Applicable)

Remarks:

Pressure 3½" Ram's to 600# Held o.k.
Pressure Hydrill to 600# Held o.k.
Csg. Bowl to K.B. - 8.20'
Grd. to K.B. - 7.50'

SIGNATURE Cliff Jasman

OPC 17

CANADA CITIES SERVICE PETROLEUM CORPORATION

DAILY DRILLING REPORT

Lease & Well No. C.S. NOEL LAFERTE RIVER Location N-15 61° 44' 55" - N 118° 48' 02" - W Province N.W.T

Contractor TRI-CITY DRILLING LTD RIG #3 Date Feb 25/70

Depth at 8 AM 65' 4 PM 210' Midnight 210'

Driller's 12-8A DOUG JOHNSON 8A-4P E. DUPERRON 4P-12 ROBERT RIZZOLI

FORMATION RECORD

FROM	TO	FORMATION
12:00	12:15	DRILL RAT HOLE
12:15	8:00	DRILLING 9 7/8" HOLE (SPUD IN @ 12:15 AM Feb 25/70)
8:00	9:30	MIX MUD + CLEAN OUT FILL TO BTM.
9:30	4:00	DRILLING 9 7/8" HOLE
4:00	10:00	DUMMY TRIP - RUN 7" SURFACE CASING PLUG DOWN @ 10:00 p.m
10:00	12:00	W.O.C

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT
123'	1/2°	S. SHOT
210'	1/4°	"

DRILL PIPE TRIPS

DEPTH	REASON

MUD RECORD

TOUR	TIME	CHARACTERISTICS WEIGHT	VIS.-SEC.	CC WL	CONDITIONERS AMOUNT	KIND
1	8:00		30		1600#	GEL
1	9:30		50		50#	CAUSTIC
1						
2						
2						
2						
3	4:00		60			
3						
3						

SIZE HOLE 9 7/8" PUMP PRESSURE MIDNIGHT W.O.C. DRILL PIPE WT. MIDNIGHT

CORE AND D.S.T. RECORD

CORE NO.	FROM	TO	RECOVERY	DRILLING TIME-MIN.	SIZE BIT	KIND	FORMATION	SHOWING

D.S.T. No.	FROM	TO	TIME MIN.	FORMATION	RECOVERY AND REMARKS

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE F. COLLAR	MAKE SHOE	TALLY	CEMENTED AT	SACKS	KIND CEMENT
7"	17#	JAPAN		BAKER	210.97	205	75	CONT. INLAND.

NOTE: (Attach Casing and Drill Stem Test Reports When Applicable)

Remarks: Mobile Telephone pick up on Feb 24 @ Hay River. 2-m-4859.

Run 7 Jts 7" 17# J-55 STC CASING
Cement w/ 75 sks Cont. Cement + 2% CaCl.
Good Cement Returns Plug Down @ 10:00 p.m Feb 25/70
Casing Landed @ 205' K.B. —
Elevations 822' K.B.

SIGNATURE Cliff Jasman