



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 COLUMBIA GAS ET AL KOTANEELEE YT. H-38

Location: Unit H Section 38 Grid 60° 10' - 124° 00'
 Latitude 60° 07' 16" Longitude 124° 06' 03"
 Unique Well Identifier 300H386010124000
 Universal Well Location Reference. Lat. 60.12111° N Long. 124.10083° W

Elevation: Ground 2250' (est.) K.B. 2275' (est.) feet above sea-level.
 Well is expected to produce from Nahanni formation at a depth
 of about 12,100 feet. Expected total final depth 13,100
 Area assigned to well
 (for District Conservation Engineer's use only)

Permit No. Lease No. 411-68 Acreage 11,958
 Permittee, licensee, or lessee Dome Petroleum Limited
 Exploratory Licence No. To March 31/77 - 2567, To March 31/78 - 2568 (Columbia Gas)
 Surface owned by Crown or Crown
 (If alienated submit name and address of owner and occupant.)

Petroleum and natural gas rights owned by Crown
 We propose to use the following strings of casing, either cementing or landing them as indicated below:-

Casing Size O.D. (Inches)	Weight (Lb./Ft.)	Grade	New or Used	Estimated Depth	Sacks of Cement
1. 20"	94#	H-40	New	750-1000	1600+
2. 13 3/8"	72#	N-80	New	3500	2700+
3. 9 5/8"	43.5/47.0#	Mod. N-80	New	11000'	2000+
4. 7"	29/32#	Mod. N-80	New	13000'	600+
5.					

Expected water, gas, and oil horizons and type of control equipment. 1-13 5/8" 5000# Hydril
Nahanni 1-13 5/8" 5000# Shaffer - Double Gate
1-13 5/8" 5000# Shaffer - Single Gate

Well will be drilled with Rotary Rig No. 9 by Nabors Drilling Ltd.
 (Drilling Contractor or company)

Responsible agent of applicant:- Contractor's Business Licence No. 4402
 At well D&S Petroleum Field Services At registered office D&S Petroleum Field Services Ltd.
 Address Ford Tower Address Ford Tower

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

Dated at Calgary, Alberta, this 10th day of February, 19 77

Signed by [Signature] Company D&S Petroleum Field Services Ltd.
 Title Agent Operator's Licence No. Applied for, will be forwarded as soon

as received

(For Oil and Mineral Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:
 Conditions of Approval are attached to and made part of
 Drilling Authority No. 878

Dated 31 March 19 77
[Signature]
 REGIONAL District Conservation Engineer

Forms to be submitted to District Conservation Engineer,
 Department of Indian Affairs and Northern Development.

CONDITIONS OF APPROVAL TO BE ATTACHED TO AND MADE A PART OF DRILLING AUTHORITY.

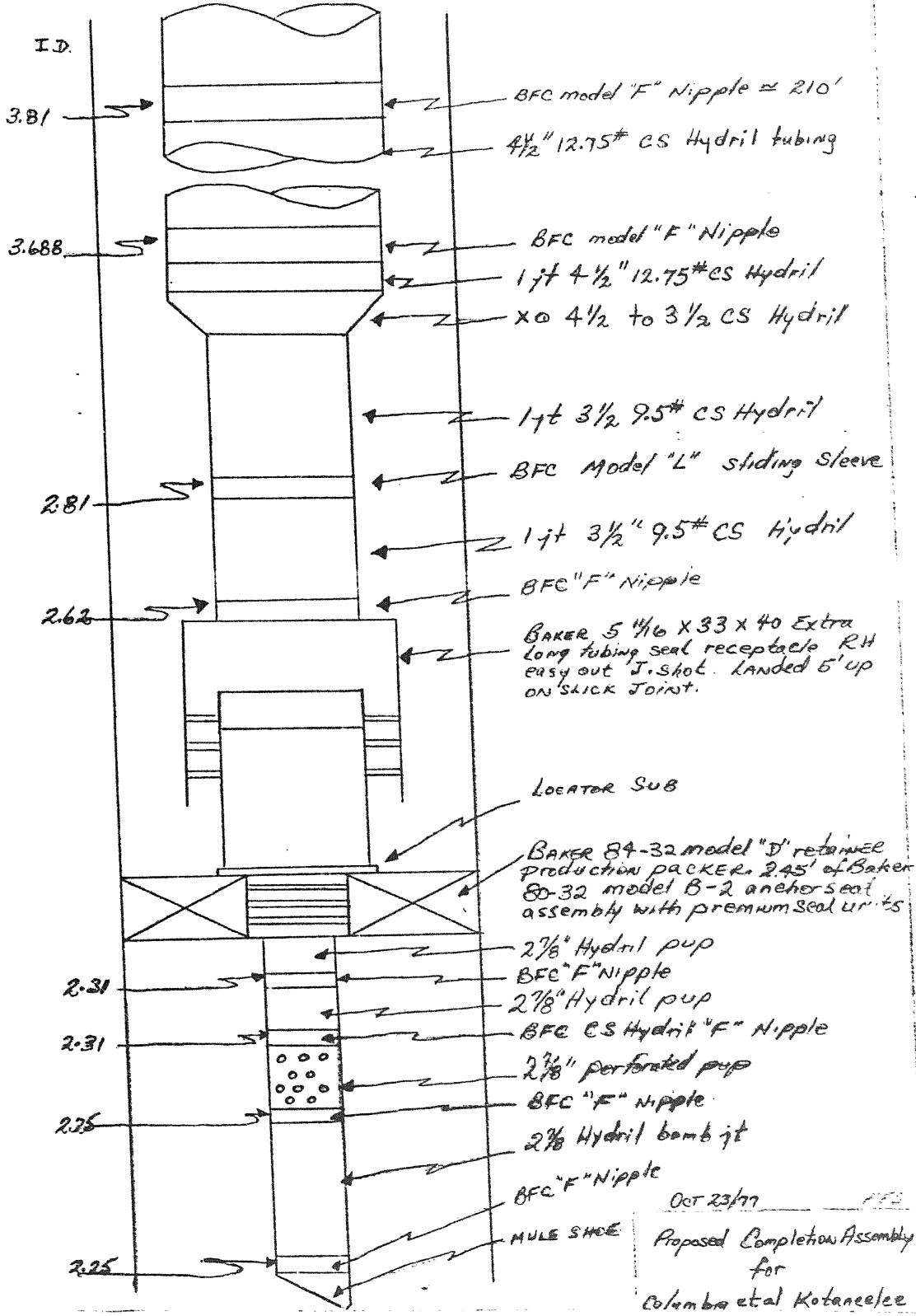
NO 878 FOR COLUMBIA GAS ET AL KOTANEELEE YT. APPROVED 31-3-77 H-38

CONDITIONS OF APPROVAL:

1. Copies of this Drilling Authority and Amendments to a Drilling Authority shall be exhibited at the drilling rig in both the Doghouse and the Drilling Foreman's office between spud and rig release dates.
2. The Company shall submit to this office, on Monday of each week, the latest reports received on the progress of the well.
3. During well drilling and testing operations, every effort shall be made to ensure that drilling fluids, chemicals and wastes shall be disposed of or contained in a manner that will prevent contamination of adjacent areas, or sub-surface waters.
4. We draw your attention to Sections 95 and 96 of the Canada Oil and Gas Land Regulations.
5. Approval must be obtained from the Regional Oil and Gas Conservation Engineer to run any casing or liners not approved on the drilling authority.
6. All shows of oil and/or gas, and water flows, or any unusual events shall be reported to the Regional Oil and Gas Conservation Engineer immediately.
7. Should a fatal accident occur, the Regional Oil and Gas Conservation Engineer shall be notified immediately and the scene of the accident shall be left intact, unless the safety considerations dictate otherwise, pending investigation by official authorities.
If the requirement to leave the scene of the accident intact interferes, in the opinion of the Operator, with the safe and efficient operation of the drilling rig, drilling operations shall be suspended after ensuring the safety of the well in the suspended state and permission to resume drilling must be obtained from the Regional Oil and Gas Conservation Engineer.
8. One field print copy of all logs and fluid analyses must be forwarded to the Regional Oil and Gas Conservation Engineer and one copy to the following address:

Chief Petroleum Engineer
Oil & Gas Drilling & Conservation Section,
Oil and Mineral Division,
Department of Indian & Northern Affairs.
Room 555, Centennial Tower,
400 Laurier Avenue, West,
OTTAWA, Ontario,
K1A 0H4.
9. Formation tops (samples or logs) of the section penetrated each week are to be reported with the weekly drilling reports.
10. The Regional Oil and Gas Conservation Engineer must be notified at least 24 hours before spudding the well.
11. Permission to drill beyond the approved final total depth MUST be obtained from the Regional Oil and Gas Conservation Engineer.

A. F. Halcrow
A. F. Halcrow,
Regional Oil & Gas Conservation
Engineer,
200 Range Road,
Whitehorse, Y.T.



Oct 23/77
 Proposed Completion Assembly
 for
 Columbia et al. Kotaneelee

WELLHEAD CONTROLS LTD.

CHRISTMAS TREE PARTS LIST

COLUMBIA GAS

C/O D & S CONSULTANTS

ITEM	PART NO.	QTY	DESCRIPTION	UNIT PRICE	TOTAL PRICE
SEE NO. X-1350 SIZE 13-3/8" x 9-5/8" WORKING PRESSURE 10000# x 7" x 4-1/2" C.S.					
1		1	Casing Head, Slip-Loc, C-29-L 12" 3000# x 13-3/8" C/W 2 - 2" 5000# S.S.P.	Customer Property	
2		2	Companion Flanges, 2" 5000# x 2" L.P.	65.85	131.70
3		1	Full Plug, 2" XXH		11.00
4		1	OCT Gate Valve, 2" 3000# F.E. F.O. Std. Trim		952.30
		1	Casing Hanger, C-29, 12" x 9-5/8"		1,533.40
5		1	Casing Spool, C-29-L, 14-3/4" Btm. 12" 3000# x 18" 5000# W/2 - 2" 5000# F.S.O.		3,348.40
		1	Reducer Packoff PE, 10-3/4" x 9-5/8"		520.30
		1	Casing Hanger, C-29, 10" x 7"		1,353.00
6		2	Companion Flanged, 2" 5000# x 2" L.P.	65.85	131.70
7		2	VR Plug, 2"	103.40	206.80
8		1	OCT Gate Valve, 2" 5000# F.E. F.O. Std. Trim		1,316.10
		20	Studs & Nuts, B-7, 1-3/8" x 10-1/4"	9.00	180.00
		32	Studs & Nuts, B-7, 7/8" x 6"	2.40	76.80
		1	Steel Ring Gasket, R-57		23.75
		6	Steel Ring Gaskets, R-24	5.83	34.98
		12	Studs & Nuts, B-7, 1-7/8" x 13-3/8"	27.04	324.48
9		1	Tubing Head, TCM, 10" 5000# x 7-1/16" 10,000# x 9" Btm. W/2 - 1-13/16" 10,000# S.S.O.		4,049.92
		1	Reducer Packoff Assembly PE, 9" x 7"		273.2
		1	Tubing Hanger, TC1W, 6" x 4-1/2" W/Viton Packing		775.0
10		2	Companion Flanges, 1-13/16" 10,000# x 2" L.P.	181.20	362.4
11		1	W-K-M Gate Valve, 1-13/16" 10,000# F.E. F.O. Nace Trim		2,620.0
13		1	Tubing Head Adapter, 7-1/16" 10,000# x 4-1/16" 10,000# W/4-1/2" C.S. Hydril Thread & Test Port		1,656.0

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PAGE TWO

13-3/8" x 9-5/8"
 SIZE x 7" x 4-1/2" C.S. WORKING PRESSURE 10,000#

EE. NO. X-1350

QTY	PART NO.	QTY	DESCRIPTION	UNIT PRICE	TOTAL PRICE
14A		1	WKM GATE VALVE, 4-1/16" 5,000 F.E. F.O. NACE TRIM		
14		2	W-K-M Gate Valves, 4-1/16" 10,000 F.E. F.O. Nace Trim	9867.96	29,603.88
15		1	Blind Flange, 4-1/16" 10,000#		339.60
16		1	Studded Cross, 4-1/16" 10,000# F/H2S Service		1,524.00
17		1	Bottom Hole Test Adapter, B-11-A0, 4-1/16" 10,000# c 4-1/2" EUE Lift Thread W/Metal Lip Seal F/H2S		1,684.48
18		1	Needle Valve 1/2" MF		27.85
19		1	Gauge, 4-1/2" Face 0 - 10,000# S.S.		60.00
20		1	Companion Flange, 4-1/16" 10,000# x 4" L.P.		396.00
		16	Studs & Nuts, B-7X, 1-1/8" x 8"	8.35	133.60
		1	Steel Ring Gasket, BX 156 S.S.		80.32
		7	Steel Ring Gaskets, BX 155 S.S.	62.44	437.08
		3	Steel Ring Gaskets, BX 151 S.S.	34.58	108.74
		8	Studs & Nuts, B-7X 3/4" x 5"	3.40	27.20
			TOTAL		54,331.94

F.O.B. Edmonton, Alberta
 Federal Sales Tax Not Included
 Terms - Net 30 Days
 Delivery 1 of item 3 - 3 weeks
 Balance - Stock

Prices subject to change without notice and will be those in effect at time of delivery.