



Occurrence Details

Occurrence Number: 106E 035

Occurrence Name: Iltyd

Occurrence Type: Hard-rock

Status: Deposit

Date printed: 4/29/2025 2:24:33 AM

General Information

Primary Commodities: coal

Aliases: Bonnet Plume Coal

Deposit Type(s): Coal

Location(s): 65°16'1" N - -135°0'18" W

NTS Mapsheet(s): 106E06

Location Comments: 1 Kilometres

Hand Samples Available: No

Last Reviewed:

Capsule

Work History

Discovered in 1977 by Pan Ocean Oil Ltd, which acquired the coal rights in Nov/77 as Coal Exploration Licences #83 and 88 and the mineral rights as Colt cl (YA37930) in Aug/78. Pan Ocean drilled 3 holes (341 m) in 1978 and 16 holes (3 121 m) in 1979, as well as carrying out stratigraphic, metallurgical and feasibility studies. The area was relicensed as #140 and #145 in Nov/80; as #372 and #377 in Nov/83; and as CYM0014 by P. Wheelton in Dec/2001.

Capsule Geology

Four coal seams are present in a Late Cretaceous sequence of conglomerate, sandstone and shale that forms the middle unit of the Bonnet Plume Formation. The coarse clastic rocks were laid down in wet alluvial fans and braided rivers while the associated silt, mud and coal were deposited in lacustrine, paludal and overbank flood plain environments and were preserved by rapid progradation of conglomeratic fluvial sequences.

The Iltyd deposit, which occurs in an east-plunging syncline that dips up to 20°, has been drill tested in an area 5 by 3 km. The deposit is cut off to the south by a fault. Drilling intersected 4 seams but only the upper 3 are sufficiently tested to be included in reserves. The upper (#1) seam averages 6.85 m thick, with conglomerate forming the hanging wall and shale in the footwall. The #2 seam lies 10 to 40 m below the #1 seam. It averages 3.7 m thick and has a shaly conglomerate hanging wall and a shale footwall. The #3 seam lies 10 to 20 m below the #2 seam and has an average thickness of 2.4 m and a shale and conglomerate hanging wall and shale footwall. The #4 seam lies 20 to 40 m below the #3 seam. The coal has the following specifications: moisture 5.1%, ash 17.0%, volatiles 33.6%, fixed carbon 44.2%, sulphur <0.5%, specific energy 22 097 kJ/kg and ash fusion temp >1316°C. In-situ reserves were calculated as 120 930 000 tonnes measured, 29 210 000 tonnes indicated and 33 500 000 tonnes inferred. The owners consider these reserves to be adequate for 30 years of mine-mouth electric power generation.

References

ABERFORD RESOURCES LTD, Apr/82. Assessment Report *#092026 by J. McKinney.

ABERFORD RESOURCES LTD, Feb/83. Assessment Report *#062142 by G. Brown.

ABERFORD RESOURCES LTD, Feb/83. Assessment Report *#062143 by G. Brown.

AURUM GEOLOGICAL CONSULTANTS INC., 1994. Yukon Coal Inventory 1994. Energy and Mines Branch, Economic Development, Yukon Territorial Government, 169 p.

GEOLOGICAL SURVEY OF CANADA 1980. Open File 715.

GEOLOGICAL SURVEY OF CANADA 1986. Open File 1115.

GEOLOGICAL SURVEY OF CANADA Paper 76-8; P78-1A, p. 399-401.

MINERAL INDUSTRY REPORT 1978, p. 73.

NORRIS, D.K., ET AL., 1993. The geology, mineral and hydrocarbon potential of the Northern Yukon Territory and Northwestern District of Mackenzie. Geological Survey of Canada Memoir, in press.

PAN OCEAN OIL LTD, Feb/80. Assessment Report #061966 by O.R. Cullingham.

PAN OCEAN OIL LTD, Jan/81. Assessment Report #062055 by O.R. Cullingham et al.

PAN OCEAN OIL LTD, Feb/82. Assessment Report *#062114 by W.P. Stokes.

PAN OCEAN OIL LTD, Feb/82. Assessment Report *#062149 by G.R. Brown and W.J. Stephen.

Work History

Date	Work Type	Comment
12/31/1979	Drilling	Number of holes drilled: 16 Amount of work done: 3121 METRES

12/31/1978	Drilling	Number of holes drilled: 3 Amount of work done: 341 METRES
12/31/1978	Geology	Measured stratigraphic sections.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
095826	2004	Wind River Coalfield Assessment Report	Property Evaluation - Other		
062149	1982	Summary of Environmental Programs Completed in 1981, and an Outline of Projects Planned for 1982	Research/Summarize - Pre-existing Data, Environmental Assessment/Impact - Studies		
062143	1982	Bonnet Plume 1982 Water Sampling Program	Environmental Assessment/Impact - Studies		
062142	1982	Bonnet Plume 1982 Environmental Programmes	Environmental Assessment/Impact - Studies		
092026	1982	A Brief for the Development of a Coal Fired Thermal Power Station to Supply to Electricity to the Yukon Territory	Feasibility - Studies		
062150	1981	An Overview of the Vegetation, Wildlife and Fish Resources of the Bonnet Plume Lease, Northeastern Yukon Territory	Research/Summarize - Pre-existing Data, Biophysical Mapping - Studies, Environmental Assessment/Impact - Studies, Pre-feasibility - Studies		
062114	1981	Preliminary Feasibility Mining Study Iltyd Creek Deposit Bonnet Plume Coalfield	Pre-feasibility - Studies		
062055	1980	Report on Geology an Exploration of the Bonnet Plume Basin Yukon Territory	Diamond - Drilling, Bedrock Mapping - Geology , Regional Bedrock Mapping - Geology , Environmental Assessment/Impact - Studies, Resource Estimate - Studies	53	10700
061966	1980	Report on Geology an Exploration of the Bonnet Plume Basin Yukon Territory	Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Resource Estimate - Studies		
061888	1979	Report Reserves and Grade of Coal in the Bonnet Plume Basin	Feasibility - Studies, Preliminary Economic Assessment - Studies		
061889	1979	Economic, Environmental & Socio-Economic Considerations	Environmental Assessment/Impact - Studies, Preliminary Economic Assessment - Studies		
061805	1979	Report on the Geology of the Bonnet Plume Basin Yukon Territory as Determined by the 1978 Field Season	Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology		
061807	1978	Bonnet Plume Coalfield Tonnages and Grade of Coal in Support of a Proposed Thermal Generating Station in the Yukon Territory	Feasibility - Studies		
061806	1978	Yukon Thermal Power Generating Study for Pan Ocean Oil Limited	Feasibility - Studies		

Resource/Reserve

Year	Zone	Type	Commodity	Grade	Tonnage	Amount	Reported Amount	43-101 Compliant	Cut-off
1980	ILLTYD (OPEN PIT & UNDERGROUND)	Historical Estimate	coal	22097 kJ/kg	33,500,000		No	No	Unknown
High quality thermal coal ranked as volatile C bituminous.; Assessment Report #062055 by O.R. Cullingham.									
1980	ILLTYD (OPEN PIT & UNDERGROUND)	Historical Estimate	coal	22097 kJ/kg	29,210,000		No	No	Unknown
High quality thermal coal ranked as volatile C bituminous.; Assessment Report #062055 by O.R. Cullingham.									
1980	ILLTYD (OPEN PIT & UNDERGROUND)	Historical Estimate	coal	22097 kJ/kg	120,930,000		No	No	Unknown
High quality thermal coal ranked as volatile C bituminous.; Assessment Report #062055 by O.R. Cullingham.									

Drill core at YGS core library

Number	Property	Year Drilled	Core Size	Photos	Data
BP-79-17	Iltyd	1979	HQ	20	2
BP-79-17A	Iltyd	1979	HQ	22	2