



## Occurrence Details

**Occurrence Number:** 115I 001  
**Occurrence Name:** South Tantalus  
**Occurrence Type:** Hard-rock  
**Status:** Deposit  
**Date printed:** 4/28/2025 1:32:10 PM

## General Information

**Primary Commodities:** coal  
**Deposit Type(s):** Coal  
**Location(s):** 62°4'49" N - -136°15'10" W  
**NTS Mapsheet(s):** 115I01  
**Location Comments:** .5 Kilometres  
**Hand Samples Available:** No  
**Last Reviewed:**

### Capsule

#### Work History

A coal seam was exposed in two bulldozer trenches by Anvil Mg Corp L in Aug/66 on Lease 2949 staked earlier in the year. The discovery was made from geological projections from the main Tantalus deposit.  
The adjoining area to the east was acquired in Sep/70 as Coal Exploration Licence 17 by Teslin EL, which did surface studies in 1970-71, drilled one 94.5 m hole in 1971 and one 73.2 m hole in 1973, and staked four coal leases in Nov/73.  
The Anvil leases were transferred in 1975 to Cyprus Anvil Mg Corp, which optioned the Teslin EL leases and added five more leases to the southeast and explored with mapping and 6 holes (1524 m) in 1976, geophysical surveys in 1977, and 32 holes (3048 m) in 1979.  
Control of Cyprus Anvil was sold to Hudson's Bay O & GL and subsequently to Dome Pet L in 1981. Dome's interest was sold in 1985 to Curragh Res L.  
Acquired as Coal License CYW0062 in Sep/2003 by Archer, Cathro and Associates (1981) Ltd.

#### Capsule Geology

On the Anvil leases, a 9 m wide seam in the Upper Jurassic Tantalus formation strikes north-south and dips 60° east. An analysis by the Department of Mines showed the coal is non-coking with a dry composition of 14.8% ash, 26.0% volatile and 59.2% fixed carbon.  
The 1973 Teslin drill hole cut 3.2 m of coal about 1200 m southeast of the Anvil trenches. The 1976 and 1979 drilling was confined to this southerly zone, where an inferred open pittable resource of 780 633 tonnes of High Volatile B Bituminous to meta-anthracite ranked coal was outlined in a shallow syncline with a stripping ratio of 10.7:1. About 900 m of strike length was tested to depth. Unfortunately, the coal proved to be of poor quality due to a high ash content, which was attributed to thermal alteration associated with felsic volcanics and/sills locally present within the sequence.

#### References

AURUM GEOLOGICAL CONSULTANTS INC., 1994. Yukon Coal Inventory 1994. Energy and Mines Branch, Economic Development, Yukon Territorial Government, 169 p.  
CYPRUS ANVIL MINING CORPORATION, 1976. Assessment Report \*#092031 by T.J. Adamson, P. Hannigan and R.P. Hill.  
CYPRUS ANVIL MINING CORPORATION, Feb/77. Assessment Report #092031 by R.P. Hill.  
CYPRUS ANVIL MINING CORPORATION, Apr/78. Assessment Report \*#092032 by R.P. Hill.  
CYPRUS ANVIL MINING CORPORATION, 1981. Assessment Report \*#090815 by T.J. Adamson.  
CYPRUS ANVIL MINING CORPORATION, 1981. Assessment Report #092031 by R.P. Hill.  
GEOLOGICAL SURVEY OF CANADA Paper 67-40, p. 89.  
MINERAL INDUSTRY REPORT 1973, p. 120-121; 1977, p. 73.  
TESLIN EXPLORATION LTD, 1972. Assessment Report \*#019920 by J.F. Hlavay and R.J. Kirker.

### Work History

Date	Work Type	Comment
12/31/1979	Drilling	Thirty-two holes, 3,048 m.
12/31/1977	Ground Geophysics	Company experimented with various geophysical methods including various magnetic methods, VLF-EM, resistivity, scintillometer and IP. None of the methods were particularly successful.
12/31/1976	Drilling	Six holes, 1,524 m.
12/31/1976	Geology	
12/31/1973	Drilling	One hole, 73.2 m.

12/31/1971	Drilling	One hole, 94.5 m.
12/31/1970	Geology	
12/31/1970	Other	
12/31/1966	Trenching	

### Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
<a href="#">097197</a>	2017	Memo-Division Mountain Coal Project, Yukon Territory	Property Evaluation - Other		
<a href="#">090815</a>	1979	Carmacks South Coal Project Report on 1979 1980 Field Work	Rotary - Drilling, Rock - Geochemistry, Bedrock Mapping - Geology, Mechanical - Trenching	32	3365
<a href="#">092031</a>	1977	Report on Preliminary Evaluation Carmacks Coal Project	Property Evaluation - Other, Data Compilation - Pre-existing Data		
<a href="#">092032</a>	1977	Report on 1977 Reconnaissance of Yukon Coal Occurrences, Report on 1977 Field Program Carmacks Coal Project	Orthophoto - Airphotography, Rotary - Drilling, Drill Cuttings - Geochemistry, Detailed Bedrock Mapping - Geology, EM - Ground Geophysics, Gravity Survey - Ground Geophysics, IP - Ground Geophysics, Resistivity - Ground Geophysics, Petrographic - Lab Work/Physical Studies, Line Cutting - Other	47	3476.85
<a href="#">061568</a>	1976	Carmacks Coal Project	Diamond - Drilling	10	1541.07
<a href="#">019920</a>	1971	1971 Report on Explorations for Coal in the Carmacks and Nordenskiöld Areas	All Weather Road - Development, Surface, Rock - Geochemistry, IP - Ground Geophysics, Prospecting - Other		
<a href="#">060582</a>	1971	[Report on Explorations in Nordenskiöld and Carmacks Area]	Diamond - Drilling, Rock - Geochemistry, Detailed Bedrock Mapping - Geology	1	94.50
<a href="#">060897</a>	1970	Exploration Activities of Norman H. Ursel Associates Ltd.	Rock - Geochemistry, Gamma-ray Spectrometry - Ground Geophysics, Prospecting - Other, Handblast - Trenching		

### Related References

Number	Title	Page(s)	Reference Type	Document Type
<a href="#">ARMC003591</a>	Summary of exploration and development work - 1978 - Various claims		Property File Collection	Report
<a href="#">ARMC003596</a>	Summary of exploration and development work - Tantalus Butte Mine		Property File Collection	Report
<a href="#">ARMC008313</a>	Plan map showing underground control survey - Tantalus Butte coal mine		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008214</a>	Geological map of open pit area - Carmacks coal project- Tantalus Butte - Map 2		Property File Collection	Geoscience Map (Geological - Bedrock)
<a href="#">ARMC008215</a>	1981 proposed mine plan map - Carmacks coal properties - Tantalus Butte mine - Map 1		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008216</a>	Cross-section no. 614.650 - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008217</a>	Cross-section no. 613.000N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008218</a>	Cross-section no. - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008219</a>	Cross-section no. 613.250 - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008220</a>	Cross-section no. 613.200N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008221</a>	Cross-section no. 613.350N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008222</a>	Cross-section no. 613.300N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008223</a>	Cross-section no. 613.450N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008224</a>	Cross-section no. 613.400N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008225</a>	Cross-section no. 613.550 - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008226</a>	Cross-section no. 613.650 - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008227</a>	Cross-section no. 613.500N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008228</a>	Cross-section no. 613.600N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082</a>			Property File	

<a href="#">ARMC0082 29</a>	Cross-section no. 613.700N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 30</a>	Cross-section no. 613.800N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 31</a>	Cross-section no. 613.900N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 32</a>	Cross-section no. 614.00N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 34</a>	Cross-section no. 614.200N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 35</a>	Cross-section no. 613.700N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 36</a>	Cross-section no. 613.750N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 37</a>	Cross-section no. 613.850N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 38</a>	Cross-section no. 613.950N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 39</a>	Cross-section no. 614.050N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 40</a>	Cross-section no. 614.150N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 41</a>	Cross-section no. 614.300N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 42</a>	Cross-section no. 614.400N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 43</a>	Cross-section no. 614.500N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 44</a>	Cross-section no. 614.600N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 45</a>	Cross-section no. 614.250N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 46</a>	Cross-section no. 614.350N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 47</a>	Cross-section no. 614.450N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 48</a>	Cross-section no. 614.550N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 49</a>	Geology map of Tantalus Basin west half - Appendix 1		Property File Collection	Geoscience Map (Geological - Bedrock)
<a href="#">ARMC0082 50</a>	Plan map showing surface and underground - Tantalus Butte mine - Drawing no. 175		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 51</a>	Geological map of open pit area - Tantalus Butte coal mine - Map 3		Property File Collection	Geoscience Map (Geological - Bedrock)
<a href="#">ARMC0082 52</a>	Geological map of open pit area - 2 of 2 - Carmacks coal project- Tantalus Butte - Map 3		Property File Collection	Geoscience Map (Geological - Bedrock)
<a href="#">ARMC0082 53</a>	Carmacks topographic map		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 54</a>	V.L.F. electromagnetic survey map - Contours of Fraser filtered in phase - Carmacks coal project		Property File Collection	Geophysical Map
<a href="#">ARMC0082 55</a>	Reconnaissance map - Pencil manuscript - Sheet 1 of 1 - 76-67		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 58</a>	Composite section map showing working area - underground plans - Tantalus Butte coal mine - Carmacks coal - Drawing no. WB 172A		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 59</a>	Composite plan map - Tantalus Butte mine - Drawing no. 171		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 60</a>	Vertical N-S long. section map - Tantalus Butte mine - Drawing no. 172		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 93</a>	Open pit area map - 1977 - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0082 94</a>	Topographic plan map - Tantalus Butte coal mine - Carmacks		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0083 05</a>	Reconnaissance map - pencil manuscript - Sheet 1 of 2 - 76-67 - Carmacks		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0083 06</a>	Reconnaissance map - pencil manuscript - Sheet 2 of 2 - 76-67 - Carmacks		Property File Collection	Geoscience Map (General)
<a href="#">ARMC0083 07</a>	Carmacks topographic map - Job No. 77-114		Property File Collection	Geoscience Map (General)

<a href="#">ARMC008308</a>	Preliminary plan map of Carmacks coal mine - Surface lots		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008309</a>	Reconnaissance map - Pencil manuscript - Drawing no. 72-210 - Tantalus Butte coal mine - Carmacks		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008310</a>	Geology map of Carmacks coal lease area, Yukon - Map no. 1		Property File Collection	Geoscience Map (Geological - Bedrock)
<a href="#">ARMC008311</a>	Plan map of survey of lots 23 and 24, Group 10 - Carmacks		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008312</a>	Field notes of resurvey of certain boundaries of lots 23 and 24 - Group 10, Carmacks - Drawing #52087		Property File Collection	Miscellaneous Company Documents
<a href="#">ARMC008233</a>	Cross-section no. 614.100N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008314</a>	Map - Coal leases in Carmacks area - Map No. 2		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008315</a>	Map 1 - Fall 1989 On-site inspection safety/reclamation - Carmacks Coal properties		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008316</a>	Plan map showing coal mining leases - Carmacks area		Property File Collection	Geoscience Map (General)
<a href="#">ARMC008257</a>	Composite plan map of working area - Tantalus Butte coal mine - Drawing no. WB 171A		Property File Collection	Geoscience Map (General)
<a href="#">ARMC007839</a>	Geological map of open pit area - Tantalus Butte coal mine - Carmacks		Property File Collection	Geoscience Map (Geological - Bedrock)
<a href="#">ARMC007842</a>	Electromagnetic survey map - Contours of Fraser filtered in phase readings - Carmacks coal project		Property File Collection	Geophysical Map
<a href="#">ARMC007843</a>	Electromagnetic survey map - profiles of in phase and quadrature readings - Carmacks coal project		Property File Collection	Geophysical Map
<a href="#">ARMC007844</a>	Map 1 - 1981 proposed mine plan - Tantalus Butte mine		Property File Collection	Geoscience Map (General)
<a href="#">ARMC018569</a>	Field notes - 1977 - Carmacks		Property File Collection	Miscellaneous Company Documents
<a href="#">ARMC018570</a>	Field notes - 1977 drill logs - Carmacks Coal		Property File Collection	Miscellaneous Company Documents
<a href="#">ARMC018571</a>	Field notes - 1976 - Carmacks		Property File Collection	Miscellaneous Company Documents
<a href="#">ARMC018572</a>	Field notes - 1977 - Carmacks		Property File Collection	Miscellaneous Company Documents
<a href="#">ARMC018599</a>	Field notes - Carmacks		Property File Collection	Miscellaneous Company Documents
<a href="#">ARMC020332</a>	Claim map - Sheet 115-I-1 - Carmacks - Carmacks coal leases		Property File Collection	Geoscience Map (General)
<a href="#">ARMC020334</a>	Claim map - Sheet 115-I-1 - Carmacks coal leases		Property File Collection	Geoscience Map (General)
<a href="#">ARMC017927</a>	Air photos - NW 56777-14, 15, 34, 37, 38, 49, 50, 51, 55, 56, 89		Property File Collection	Geoscience Map (General)
<a href="#">ARMC017928</a>	Air photo - NW 56777-33 with overlay		Property File Collection	Geoscience Map (General)

## Resource/Reserve

Year	Zone	Type	Commodity	Grade	Tonnage	Amount	Reported Amount	43-101 Compliant	Cut-off
1977	CARMACKS SOUTH (OPEN PIT)	Historical Estimate	coal	22500 kJ/kg	780,633		No	No	Unknown

Coal varies widely in composition, rank and quality. Rank varies from High Volatile B Bituminous to meta-anthracite and ash content ranges from 1.5 to 65%; CYPRUS ANVIL MINING CORPORATION, Feb/77. Assessment Report #092031 by R.P. Hill.