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2018 Hand Trenching Project
Eby Scott Barite Property
Lawson Township
Gowganda Ontario

Prepared By: Michael Nemcsok
10 Mar 2019

Prepared for: Michael Nemcsok
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(holder of Tenure ID's 323094, 345516, 256673, 172705: legacy claim 4273197)

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Introduction

My recent exploration in northeastern Lawson was hand excavation and mapping of a trench completed on Tenure ID 172705, which is contiguous to Tenure ID's 323094, 345516 and 256673 (formerly claim number 4273197), about 1 km south of Hwy 560 and about 2km southeast of Long Point Lake. This claim block covers the former Thompson Eby Scott property. The scope of this traverse was to explore the continuity of the previously mined barite vein to the west of the historic pit. The work took place in May and June 2018 and was completed by me, Michael Nemcsok. I intend to apply all assessment work credits earned through completion of this work approximately evenly to all claims so as to hold them in good standing.

Property Location, Access and Description

The claim block explored in this project is located south side of Highway 560, approximately 1.4 km east of Longpoint Lake in the Northeast quadrant of Lawson Township.

Access is gained by way of a drivable seasonal gravel road south from Highway 560, 2.5km east of Beauty Lake Road. The gravel road passes through Tenure ID's 323094 and 256673 and is about 50m from the #4 claim post of Claim #4273197 when 340m south of highway 560 As shown below in Figure 1. A trail has been cut from the road to the #1 post and is kept open by hunters as a bear baiting location.

The 4273197 claim block was a square measuring roughly 400m on each of its four sides. It has been converted to 4 standard tenure blocks (*Tenure ID's 323094, 345516, 256673, 172705*). Vegetation on the claim is primarily coniferous (Spruce, Pine). Relief is very subtle except for a steep diabase ridge running along the south boundary line of the claim which reaches approximately 80 ft above the surrounding terrain. The northeast corner of the claim is swampy with dense tag alder bush. The full extent of the new tenure ID's has not been explored yet, but forestry operations appear to have cleared most of the eastern extent of Tenure ID's 345516 and 172705.

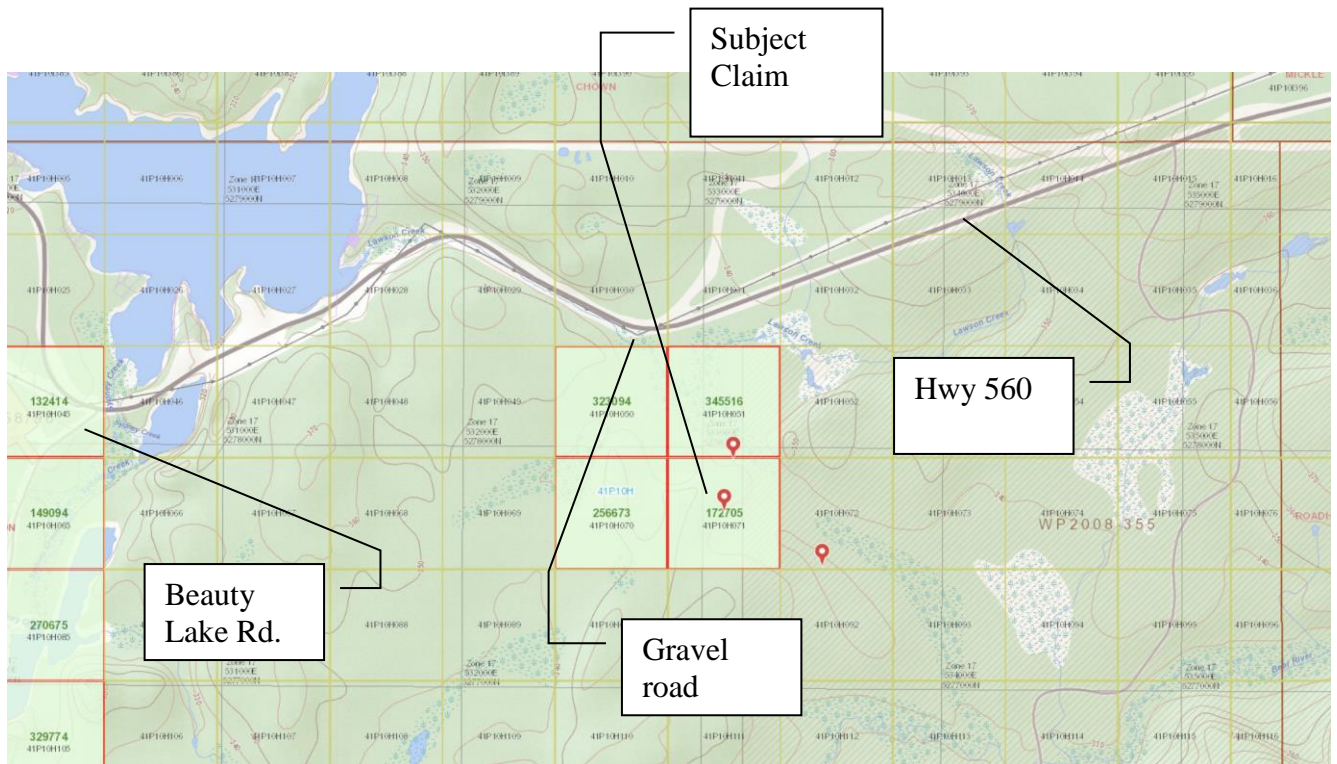


Figure 1: Claim Location Key Map: Claim is in Lawson Township, West of Elk Lake, Larder Lake Mining Division.

Description of Previous Work

The underlying deposit was originally staked by H. D. Eby of Toronto.

“Prior to 1920, a single claim was staked by H.D. Eby of Toronto. In 1939 and 1940, 142 tons and 83 tons respectively were shipped from an open cut by H.D. Eby and Company. At the time of the writer’s visit in 1962, the area around the cut had been recently brushed out and a single diamond drill hole had been put down. The ground was open for staking throughout the latter part of 1962.”
(from p. 20)

-taken from P. 19 - 21 of Industrial Mineral Report 10 ‘Barite in Ontario’, GR Guillet, 1963

The property was diamond drilled on two occasions, with one hole drilled in approximately parallel to the open cut (found no intersections), and a second time in 1970. The second program was completed by John Pollock of Englehart and consisted of one hole drilled towards the pit. It intersected the deposit between 41 and 45 feet from the collar of their hole.

A traverse was completed in 2011 by Michael Nemcsok on claim 3007520, located over this same deposit. That traverse explored for erosional depressions in the topography that could represent continuation of the barite vein to the west. The program identified several depressions that could be barite vein extensions, but none of them were confirmed. A mineralized quartz vein was found approximately 80m east of the #3 post of claim 3007520. It strikes N20 degrees W, and dips east at about 60 degrees. It ranges from 4 to 10 inches in width and is exposed for 16 feet along strike. It is now included in the NE quadrant of Tenure ID 256673.

The hand trenching completed in 2018 builds upon the traverse done in 2011 by attempting to expose the continuation of the barite vein to the west of the Eby Scott pit.

Approach

Extension of the barite vein mined in the Eby Scott pit may continue to the west. The vein pinches out to the east (possibly dragged to the north), but is open to the west and to depth. The nearest depression to the pit that was found in the 2011 traverse (approximately 100 m west of the pit) was found to be too deeply buried in overburden to expose by hand methods. As a relatively soft rock, barite veins can exhibit pronounced differential weathering and so depressions in the ground surface may be identifiers for exploration targets.

An area 10 m west of the pit was chosen for exploration by hand trenching on Tenure ID 172705. It was the first rise in the topography from an otherwise wet ground area, and showed some bedrock exposure on a line that would cross the projection of the vein. A shallow trench 10m long was excavated with a shovel and swede pick to expose the bedrock across the projected strike of the vein, 10 m west of the vein in the Eby Scott pit. Over the course of 2.5 days, the trench was excavated, cleaned, examined, surveyed with a compass and fiberglass tape, and mapped. A map including a section view is included in the appendix of this report.

My intent was to locate and map the westward extension of the barite.

The field work was completed in 2.5 days.

Summary of Work

The trench was marked out with a magnetic compass and fiberglass tape, then excavated with a steel shovel and Swede pick. The trench was positioned and aligned to cross the projected strike of the Eby Scott occurrence.

Hand Trenching

A trench was excavated to the minimum depth and width necessary to expose the bedrock. This gave a trench that ranged from 0.4 to 0.5 m in width and 10 m long. Overburden was mostly composed of black earth soil with large quantities of sawdust and wood chips from the logging operations.

The north end of the trench was stopped by very wet ground. The saturated soils drained into the trench immediately and prevented the advance of digging. It is suggested that exploration in this direction might become possible in extremely dry weather conditions.

Cleaning of Trench Bottom

Immediately before mapping, the trench bottom was swept with a broom to clean and expose the bedrock for examination and identification.

Mapping

The excavated trench was mapped in detail to record the exposed geology and physical features of the ground in the work area. Please refer to the map in Appendix M-2 for details of the area examined.

Samples

Samples were taken of the barite found in the barite-laden soil and the weathered barite fragments areas. Compared to a sample of barite from the former Extender Minerals operations in North Williams township, the barite found here is of a cleaner white color. This is a desirable property for many of the barite manufacturing markets. The photo in Figure 2 below shows a sample from each location for comparison.



Figure 2: Barite samples from North Williams township (Extender Minerals mine), Left, compared to Lawson Twp Eby Scott deposit, right. Note clean white colour of barite from Lawson township.

Examination of the samples from the Lawson Twp Eby Scott deposit showed no objectionable impurities.

Summary of Findings

The trenching work uncovered two areas of interest. A deep depression in the trench could be an erosional feature on top of the vein extension. At the north end of the trench, a thick bed of weathered fragments of barite could be the weathered in-situ cap of the vein.

Deep and Abrupt Depression in Trench

In line with, and approximately 10 m west of the projection of the Eby-Scott barite deposit was a vertical-walled depression in the diabase country rock. It was almost as wide as the barite in the Eby-Scott pit. It filled with water as the trench

was excavated and the bottom of the depression could not be examined. It is possible that this is the extension of the vein. The overburden had very little barite in it, and the quantity of barite decreased in the deeper part of the trench. This physical feature did however have a close alignment with the projection of the barite in the nearby pit. The diabase on both sides of the depression was medium-grained and showed the same jointing as found in the wall rock at the pit: N 75°E and N 20°W.

Weathered Barite Fragments

The bedrock at the north end of the trench dove into deeper and wetter overburden. At the limit of the area that could be dug with hand shovels, the soil was a whitened color, with many fragments of round-edged barite spread throughout the soil. The concentration of larger fragments increased with depth. Although water prevented examination of the in-situ bedrock at this location, many shovels of mostly pure barite 'gravel' were dug from this area. It is theorized that this may be the weathered cap of a continuation of the vein.

Both areas of interest were flooded during the time of the field work on this project, and this prevented in-situ examination of the trench floor in the lowest points. As a soft, fast-eroding mineral, it is thought that these low areas may be the extension or an offset of the Eby Scott barite vein.

In reviewing the work completed to date, it was contemplated that there is perhaps an association between the mineralized quartz vein discovered in the 2011 traverse (striking N 20°W) and the barite vein at the Eby Scott pit (striking N 75°E). These veins each occupy an azimuth parallel to one of the primary jointing planes of the country rock. Observing that mineralization has occurred on both jointing planes in this area may be a useful clue in the continued exploration of the claim block.

Recommendations for Further Work

It is recommended that future work be done to bail the depressions in the trench that were mapped in this 2018 project to allow them to be fully examined.

It would also be worthwhile to diamond drill a row of North-South, shallow-dumped holes on close spacing, beginning at the west end of the pit and moving west. This could allow tracking of the westward extension with reduced impact on the surface soil and vegetation cover as compared to additional trenching.

Statement of Qualifications: Michael Nemcsok

I, Michael Nemcsok graduated from Haileybury School of Mines in 2001 with a Diploma as a Mining Engineering Technician. In that course of studies I was educated in geology, mineralogy, sampling, field mapping techniques and mining exploration.

I have worked as a Mining Engineering Technician and Mining Engineer at mines and exploration sites across Canada, in Europe, Africa, Asia, Central America and South America.

I am now a 4th year Mining engineering student at Queen's University, currently studying part time. I am studying many aspects of mineral exploration and development, and find opportunity to apply this in my prospecting work.

I have previous experience in all the types of work involved in this project, and consider myself to be duly qualified to conduct such work as has been done here on Claim Tenure ID's 323094, 345516, 256673, 172705 in the year 2018 as outlined in this report.

Michael Nemcsok

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Property Location Map #1	M-1
Lawson Twp 2018 Hand Trenching Work Location and Technical Map	M-2

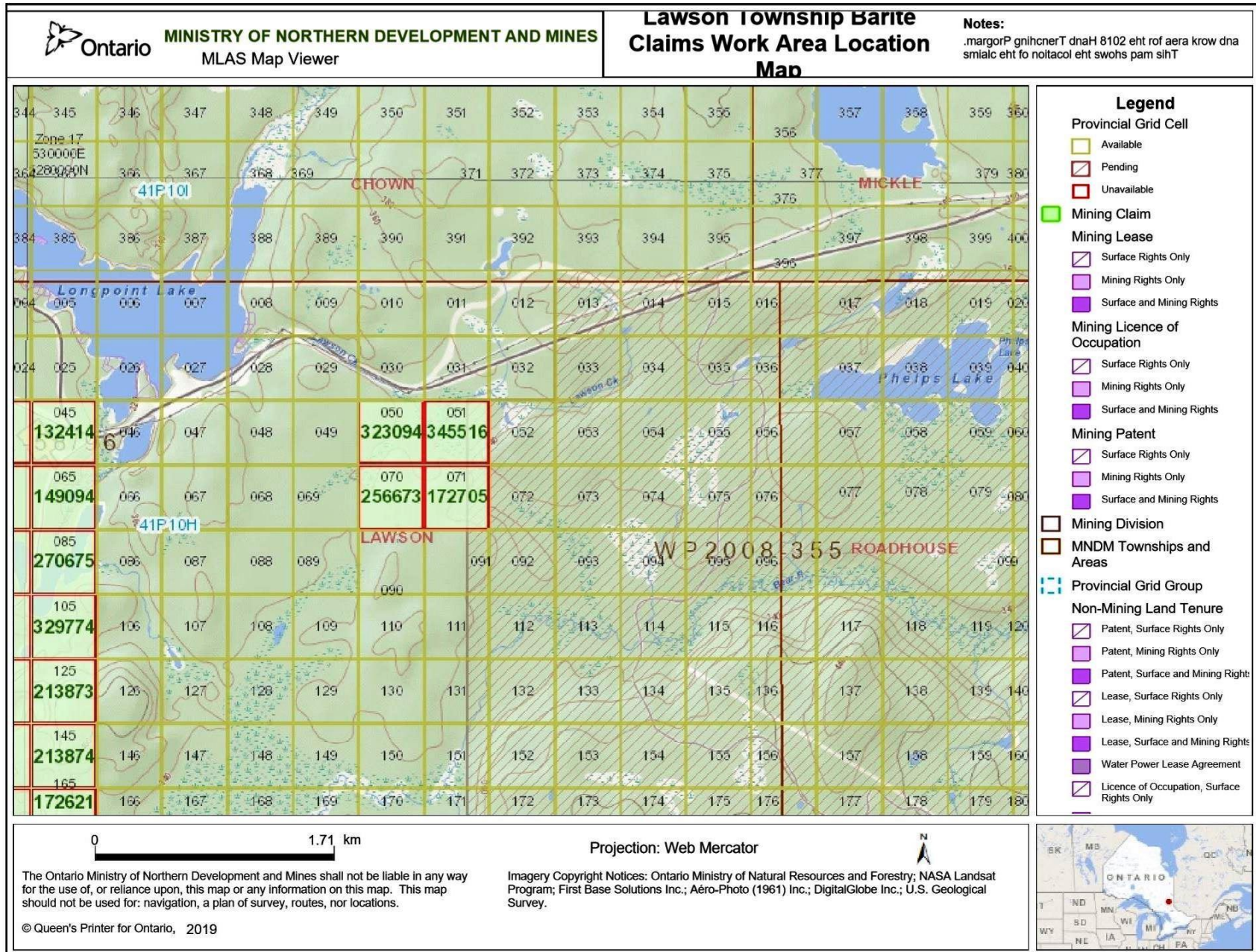
Equipment, Services and Labour

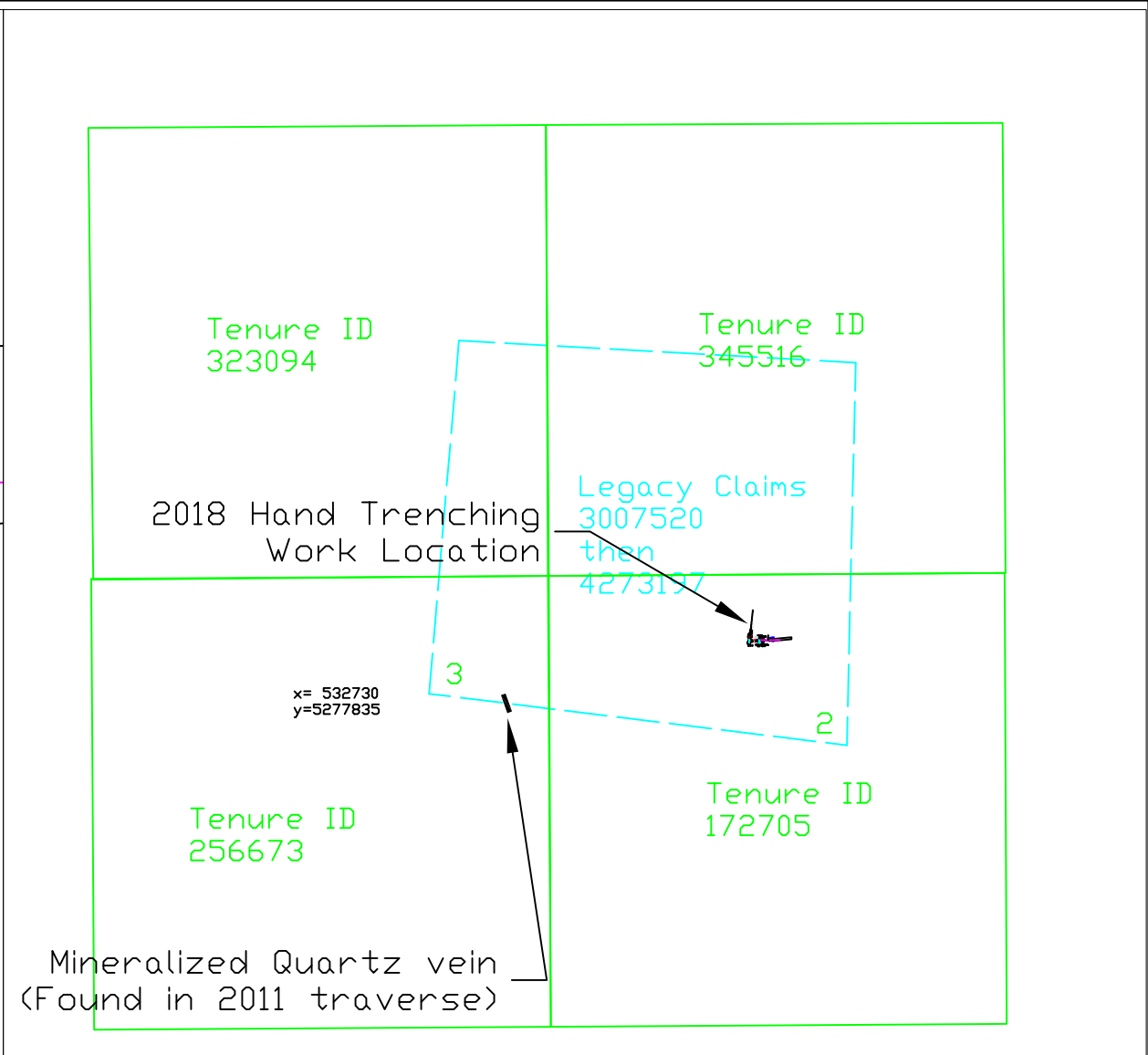
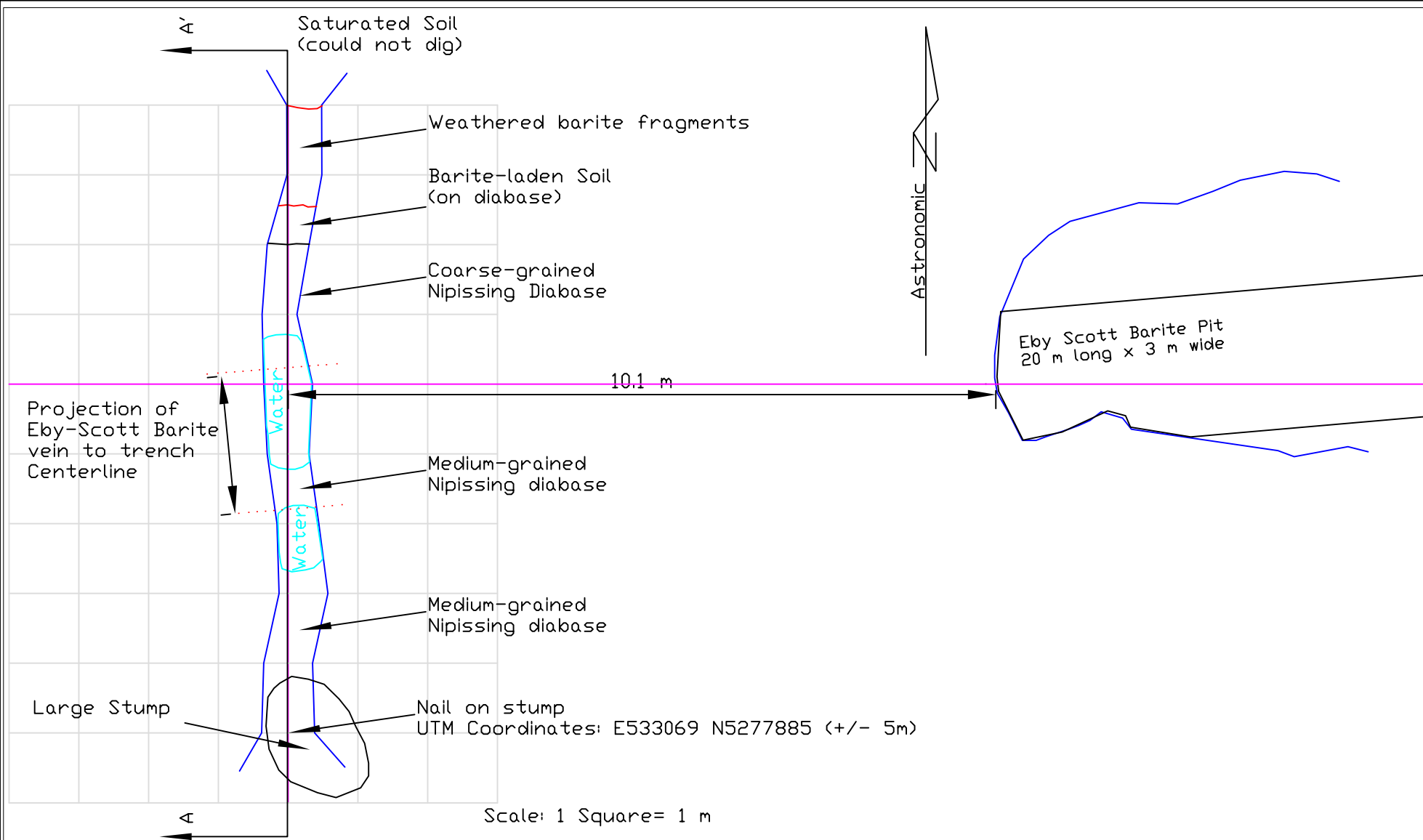
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References:

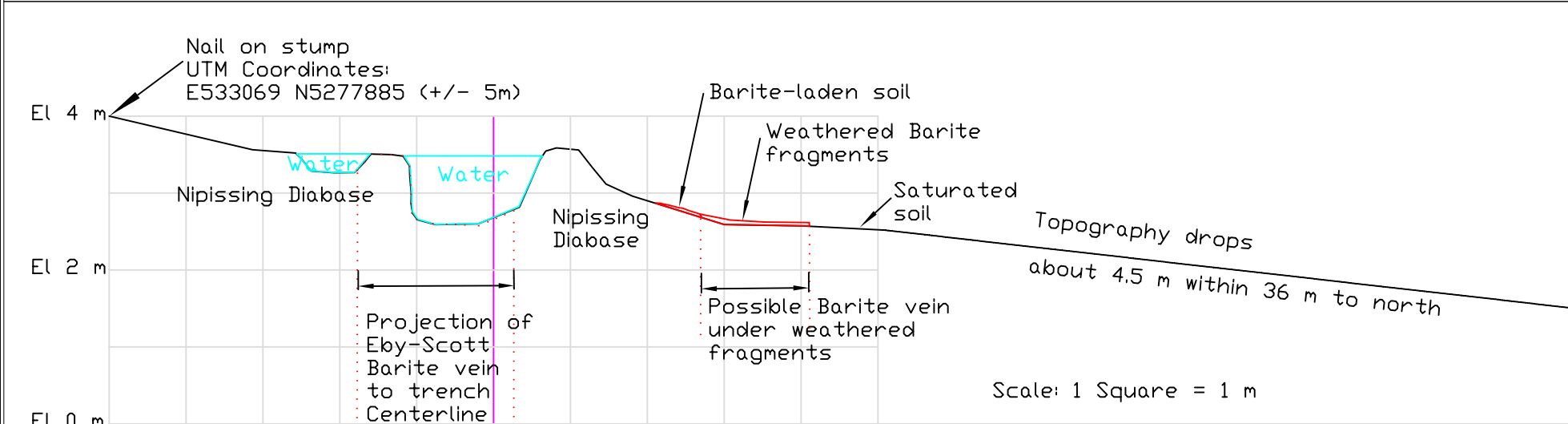
GR Guillet:

1963: 'Barite in Ontario', Ontario Department of Mines Industrial Mineral Report
10, 57p,





2018 Hand Trenching Program: Plan view map of Geology and physical features



Section A-A' Along trench Centerline Looking West

Lawson Twp 2018 Hand Trenching Work Location and Technical Map