Occurrence Details

Occurrence Number: 105K 089
Occurrence Name: Andrew
Occurrence Type: Hard-rock
Status: Deposit
Date printed: 8/5/2025 2:21:38 PM

General Information

Primary Commodities: lead, zinc
Secondary Commodities: copper, germanium, silver
Aliases: Andrew Northeast
Deposit Type(s): Vein Polymetallic Ag-Pb-Zn+/-Au
Location(s): 62°54'26.73" N - -132°12'48.77" W
NTS Mapsheet(s): 105K16
Location Comments: Location data taken from Overland Resources Ltd occurrence map. Andrew Northeast = 642000 W, 6979000 N.
Hand Samples Available: Yes
Last Reviewed: Jun 9, 2014

Capsule

Work History

The Hess Syndicate (Atlas Explorations Ltd, Quebec Cartier Mining Company and Phillips Brothers (Canada) Ltd), carried out reconnaissance scale geological mapping and rock, silt and soil sampling during the summer of 1967. Based on early geochemical results the syndicate, staked Lad cl 3-12, 19-38 and 45-62 (Y14076), approximately 2 km to the north and northwest.

In the summer of 1968 the syndicate carried out geological mapping, rock and soil sampling, hand trenching and a ground magnetic and electromagnetic survey. In August and Sep/68 the syndicate expanded the claim block southward by staking Lad cl 65-102 (Y31259). The enlarged claim block included the Andrew occurrence (this occurrence) and other mineralized occurrence located eastward along the same mineralized trend. In 1969, the syndicate carried out road construction, bulldozer trenching, geological mapping, geochemical sampling and geophysical (airborne and ground) surveys. Most of this information was never filed for assessment credit.

The Atlas interest in the syndicate was transferred in 1974 to Cima Resources Ltd, which in 1977 drilled two diamond drill holes (14.8 m) on the Lad occurrence(Minfile Occurrence 105K 029), located approximately 3 km to the north.

Restaked within Andrew cl 3-10 (YB65798), in Jun/96 by R. Berdahl, who also staked Andrew cl 1-2 (YB65796), 2 km to the northwest to cover the Hugo Creek area (part of Lad Occurrence). In 1996, Berdahl prospected and collected grab samples from various mineralized showing previously discovered by the syndicate and now located on the Andrew claims.

In Jul/99, Berdahl carried out hand and blast trenching and geochemical sampling in the vicinity of this occurrence (called "J" showing by the syndicate).

Noranda Incorporated optioned the Andrew claims in Aug/2000 and immediately staked AMB cl 1-68, 70 and 72-104 (YC02355) forming a contiguous claim block that included the Andrew claims and other historic showing located further to the north. During the winter of 2000/01, Noranda carried out airborne magnetic and EM geophysical surveying over the area, including the Andrew/AMB claim block and Berdahl's previously staked Scott claims located to the southwest.

In Jul/2001 the company staked AMB cl 105-112 (YC02776) on the southwest corner of the claim group. From July to Oct/2001 the company carried out geological mapping, prospecting, ground magnetic and gravity geophysical surveying, rock and soil geochemical sampling and drilled 15 diamond drill holes (2,717.7 m). Ten of the holes (2,021.46 m) tested the Andrew occurrence, the remaining 5 holes tested other targets located on the claim block.

Between Sep/2001 and Feb/2002, Noranda staked AMB cl 115-162 (YC09953, includes fractional claims) on the northeast side of the block to protect internal fractions within the group and to extend the claim block to the southeast. During August and Sep/2002 the company carried out additional soil geochemical sampling around the occurrence and drilled 8 diamond drill holes (1,838.3 m) to test the Andrew mineralized zone and the surrounding area for similar mineralization. Noranda subsequently terminated its option agreement on the property and returned the claims to Berdahl.

On February 1, 2007 Overland Resources Ltd announced it had secured a twelve month exclusive option to acquire a 90% interest in the Andrew property from Berdahl for US$50,000.00. Overland Resources immediately renamed the property the Andrew Base Metal project and undertook due diligence including reviewing all previous exploration data and calculating a JORC (Australian –Joint Ore Reserve Committee) compliant resource calculation for the Andrew showing. On March 15, 2007 the company announced an inaugural JORC-compliant resource estimate for the (newly defined – (formerly zone)), Andrew (Zinc) deposit. The resource calculation was based on the results of 23 diamond drill holes (4,556 m) previously drilled on the deposit by Noranda Inc during 2001 and 2002.

In Jul/2007 Overland Resources staked Bridge cl 1-8 (YC56739), cl 11-16 (YC56747) and cl 19-32 (YC5677753) to the southwest linking the main property to the pre-existing Scott claims. The company also staked Ozzie cl 1-16 (YC56665) and cl 17-32 (YC56703) south and southwest of the Andrew deposit.

During the 2007 exploration season Overland Resources carried out property wide geological mapping, prospecting and rock and soil sampling programs. The company also tested the Andrew deposit with a 10 hole (2 979 m) diamond drill program. Only data from drillhole AN07-24 was filed for assessment credit.

On July 15, 2007 following the completion of 5 diamond drill holes, Overland Resources announced that it had elected to exercise its option early to acquire a 90% interest in the Andrew Base Metal project from Berdahl in return for cash and 5 million shares. In Nov/2007 Overland Resources released initial metallurgic test work conducted on representative samples submitted from the Andrew Zinc deposit. In February/2008 the company was issued a Winter Road Permit allowing it to mobilize heavy equipment and other supplies to the project area.

In Apr/2008 Overland Resources announced an updated JORC compliant resource for the Andrew Zinc deposit. The resource estimate was based on the 24 drillholes completed by Noranda Inc and the 10 drill holes completed by the company in 2007.

Overland Resources commenced their 2008 exploration program in mid-April. The company completed 133 diamond drillholes on the Andrew deposit and surrounding areas. The company also carried out property wide prospecting, geological mapping, rock, silt and soil sampling programs.

In May/2009 Overland Resources released a new JORC compliant mineral resources estimate for the entire Yukon Base Metal project. The new resource estimate incorporated drill data collected from the 2008 drill program.

Overland Resources did not carry out any field work in 2009, instead the company worked towards releasing an preliminary independent economic evaluation of the Yukon Base Metal project and conducting metallurgical experiments on the project's ore. The economic evaluation report and preliminary metallurgical results was released in Jun/2009 and outlined an operating scenario which included an open pit and underground development at the Andrew Zinc deposit and an open pit mining development at the newly identified Darcy (Zinc) deposit (Yukon Minfile Occurrence 105 K 004). Preliminary metallurgical work conducted on diamond drill core from the Andrew deposit estimated possible recovery rates of 98.5% for lead and 96.0% for zinc. Given the preliminary nature of the evaluation report the company spent the rest of the year and the early part of 2010 examining various scenarios to reduce the project's costs.

In 2010 Overburden Resources dug 22 test pits over the Andrew Zinc deposit to establish soil mechanics and permafrost conditions for an ongoing feasibility study. The company soil sampled an area located approximately 500 m northeast of the Andrew property which later evolved into the Andrew Northeast zone. The company also drilled 13 diamond drill holes on the Andrew deposit. Eleven of the holes were drilled for hydrogeological information and two holes were drilled to test for mineralization at depth. The company also drilled tested the Darcy Zinc deposit and the Darin zone.

In Feb/2011 Overland Resources released JORC compliant resource estimate for the newly defined Darin (Zinc) deposit (Minfile Occurrence 105K 033) and updated resource estimates for the Darcy and Andrew deposits. As part of this exercise the company released an updated JORC compliant resource estimate for the entire Yukon Base Metal Project.

During the 2011 exploration season Overland Resources drilled 74 diamond drill holes (10,437 m) on the property. Twenty nine holes were collared to test for extensions of mineralization at the Andrew and Darcy deposits. Eleven holes tested the Andrew Northeast zone (prospect). The remaining thirty-one holes collected geotechnical and hydrogeological data. The company continued working on the technical, economic and environmental components of mine permitting.

In Mar/2012 Overland Resources released updated JORC compliant resource calculations for the Andrew and Darcy deposits and the entire Yukon Base Metal project. In Jun/2012 the company released an updated study into the economics of developing a mining operation at the Yukon Base Metal project. Despite robust grades the economic study indicated a sustained long term improvement in both zinc and lead prices would be required to provide a suitable return to the company. Thus the company elected to suspend all further mine permitting work for the entire Yukon Base Metal project.

All mining claims necessary for the project are in good standing until at least 2026.

Capsule Geology

The property area is located approximately 15 km east of Mt Selous, in east-central Yukon. The closest settlements Faro and Ross River, Yukon are located 100 km to the southwest and 115 km south of the property, respectively. A winter trail connects the property to the North Canol Road at Dragon Lake located approximately 60 km to the south. Normal access to the property is by helicopter or short take-off and landing fixed wing aircraft via a 400 m unsealed airstrip located approximately 4 km northwest of the Andrew occurrence (this occurrence).

The property is located in the western portion of the Selwyn Basin; a continental margin rift-fill and cover sedimentary sequence lying off the coast of ancestral North America. The oldest stratigraphic units on the property are the Yusezyu and Narchilla Formations of the Neoproterozoic to Lower Cambrian Hyland Group. They are overlain by Ordovician to Silurian Road River Group rocks which are in turn overlain by Devonian to Mississippian Earn Group rocks. The Hyland Group comprises an upper thrust sheet that overlies the Road River and Earn Group rocks. The entire sequence has been intruded by Cretaceous granite, quartz monzonite and granodiorite intrusions assigned to the Selwyn Plutonic Suite.

Geological mapping completed by Overland Resources indicates that the Andrew occurrence is underlain by massive bedded quartz arenite sandstone that is interbedded with mudstones and lesser limestone units. Although stratigraphic relationships have not been confirmed, the rocks are likely a mixture of Hyland Group and Earn Group rocks.

Initial exploration work carried out by Atlas Explorations in 1968 identified 14 separate vein showings on the property. The original Andrew showing (Showing "J"), was found by examining a kill zone observed during the initial reconnaissance exploration program. Atlas trenched and samples various isolated showings located in the general area but none were thought significant enough to warrant additional work. *It appears much of the data for this period is missing.

Berdahl staked the Andrew claims south of the bulk of Atlas Explorations effort and concentrated his efforts along a 4 km long northwesterly trending structure which ran southeast of the Andrew showing northwesterly to the Hugo Creek area (Minfile Occurrence 105K 029). Berdahl described Showing "J" as consisting of a 100 m long kill zone that extends into talus downslope and contains 0.3 m^3 float boulders of massive galena in limestone. Bedrock generally consists of shales exhibiting minor malachite staining interbedded with quartzite to the east. Fractures within the rocks are occasionally filled with galena and/or tan or grey quartz. Selected grab samples collected in 1996 returned up to 19.2% zinc, 74.6% lead, 149 g/t silver. Other showings located in the same area generally return similar results.

In 1999 Berdahl dug a series of trenches across the "J" showing to try and discover the source of the mineralization. Trench #2 located near the northern edge of the kill zone returned 19.9% zinc over its entire 6 m length. A 25 m long composite soil sample collected over the kill zone returned 17.3% zinc. None of the trenches reached bedrock.

In 2001 Noranda examined the previously discovered showings in the course of their property wide mapping and prospecting program and identified several new occurrences or clusters of occurrences. Ground magnetic and gravity surveys were carried out over selected targets identified during the earlier airborne survey to distinguish sulphide-bearing sources from non-sulphide bearing sources and limited soil geochemical sampling was carried out over targets near the northern boundary of the property, in areas not covered by previous work.

Of the ten diamond drill holes collared at the Andrew showing, nine were collared around showing "J". The tenth hole was collared 800 m to the southeast in the vicinity of the future Darcy deposit. Drilling intersected coarse sphalerite-galena-calcite-quartz veins and breccias' occupying dilatational zones within what is likely a complex, reverse fault system. Significant intercepts from the 2001 drill program included 13.5 m grading 0.12% lead, 12.09% zinc and 1.6 g/t silver (Hole AN-01-04) and 12.8 m grading 2.31% lead, 13.63% zinc and 10.9 g/t silver (Hole AN-01-11).

The 2002 soil sampling program was designed to test for extensions of the Andrew mineralized zone to the southeast. Sampling outlined 5 lead, zinc and silver anomalies over a distance of 2 km southeast of the Andrew zone. Six of the 2002 diamond drill holes tested the main Andrew showing. These holes enlarged the mineralized area to the east where it remains open downdip on some sections, while to the west it appears to limit downdip extension of the higher grade mineralization encountered the previous year.

A single drill hole was collared approximately 125 m south of the 2001 hole which intersected the future Darcy zone. Drillhole AN-02-21 intersected mineralization in two separate intervals. The first interval intersected sphalerite associated with quartz and calcite veins in brecciated limestone and quartzite adjacent to a fault zone. It returned assays of 7.54% zinc, 0.01% lead and 0.6 g/t silver from a downhole depth of 39.95 to 45.5 m. The second interval intersected small high grade veins of galena and sphalerite from a downhole depth of 70.5 to 76.0 m which returned 2.04 % zinc, 2.51 % lead and 5.0 g/t silver.

The remaining drillhole was collared to test outcropping sphalerite mineralization observed within soil anomaly "D" located approximately 1.5 km southeast of the Andrew zone. It intersected traces of sphalerite mineralization over a 2.2 m interval, in the hanging wall of quartzite breccia zone that assayed 0.20% zinc over 0.7 m. This area would later encompass the Darin deposit.

On February 1, 2007, Overland Resources Ltd obtained an option to acquire a 90% interest in the Andrew property from Berdahl. The company immediately renamed the property the Andrew Base Metal project. On March 15, 2007 the company released a JORC (Australian –Joint Ore Reserve Committee) compliant resource calculation for the new designated Andrew deposit. The resource calculation was based on 24 diamond drillholes completed by Noranda Exploration between 2001 and 2002. Based on a 3% zinc cut-off grade the company calculated the deposit hosted a combined Indicated and Inferred resource of 5.92 million tonnes grading 5.84% zinc, 2.03%, lead, 9.49 g/t silver and 14.86 g/t germanium (refer to reserve/resource section for breakdown of individual resource classifications).

The Andrew deposit is described as a ploymetallic vein system consisting of discrete structurally controlled zones of brecciation and veining. Quartz-carbonate veining and associated

mineralization cross-cut all stratigraphic units. The deposit has been delineated over a 650 by 250 m area and has a roughly planar geology that strikes to the west and dips 50 to 70° to the north from surface. The mineralized zone is characterized by several generations of non-systematic veining and brecciation and the zone has been cut by post-mineralization faults. Mineralization is dominantly hosted in massive bedded quartz arenite sandstones which deform in a more brittle style than interbedded mudstone and lesser Narchilla Formation red-green mudstone and limestone units.

Mineralization consists of mainly sphalerite and galena that are typically coarse-grained, and occur as disseminated blebs, veins and massive aggregates. Galena and sphalerite commonly occur together, however, the galena appears to overprint sphalerite. Early barren quartz-calcite veins are cut by sphalerite-quartz veins. Crystalline to resinous reddish-brown sphalerite often occurs as rinds of quartz and calcite veining. Trace chalcopyrite occurs throughout the deposit but never in appreciable quantities.

Overland Resources carried out a lengthy due diligence program in the early part of 2007 before starting their field exploration program. The 2007 diamond drill project was focused on expanding the known deposit and upgrading existing resources. Several drillholes returned significant results, including hole AN07-30, the deepest hole drilled, which returned 10.9% zinc and 20.2 g/t germanium over 13.0 m. Following completion of the first 4 holes the company announced that it had elected to exercise its option to acquire 90% of the Andrew Base Metal project from Berdahl. At the end of the program the Andrew deposit remained open in all directions.

In Nov/2007 Overland Resources announced that initial metallurgical test work conducted by an independent metallurgical laboratory achieved metal recovery rates of up to 96.3% for zinc and 98.4% for lead using a conventional grind and floatation circuit. The resulting metal concentrate was of saleable grade.

In Apr/2008 Overland Resources released an updated JORC compliant resource for the Andrew deposit incorporating the results from the 2007 drill program. Based on a 3% zinc cut-off grade the company calculated the deposit hosted a combined Measured, Indicated and Inferred resource of 5.04 million tonnes grading 7.46% zinc, 1.72% lead, 5.43 g/t silver and 17.43 g/t germanium. The new resource significantly increased the confidence level with 83% of the new resources falling within the Measured and Indicated categories. In addition zinc grades increased by approximately 28%.

Soil sampling completed by Overland Resources in 2007 and 2008 and merged with historical data collected by Atlas Explorations, Berdahl and Noranda Explorations outlined a, 2,500 m long zinc in soil anomaly that extends to the south east of the Andrew deposit. The 2008 drill program was designed to provide infill drilling on the Andrew deposit and explore for mineralization along the 2,500 m long zinc soil anomaly. Drilling completed on the Andrew deposit confirmed the continuity of mineralization within the proposed starter pit. Drilling conducted to the southeast led to the discovery of the Darcy (Minfile Occurrence 105K 004) and Darin zones (Minfile Occurrence 105K 033).

In May/2009 Overland Resources released an updated JORC compliant resource for the Andrew deposit and an inaugural resource for the newly defined Darcy deposit. Based on a 2% zinc cut-off grade the company calculated the Andrew deposit hosted a combined Measured, Indicated and Inferred resource of 7.2 million tonnes grading 6.2% zinc and 1.5% lead. The Darcy deposit hosts an Inferred resource of 1.75 million tonnes grading 6.7% zinc.

In Jun/2009 the company released the results of an independent economic evaluation of developing a mining operation at the Andrew and Darcy deposits. The plan calls for the Andrew deposit to be mined by open pit and underground methods with additional feed produced by an open pit mine at the Darcy deposit. Initial mine life would be 6 years with an annual production of 700,000 tonnes per year producing separate zinc and lead concentrates. Annual production is estimated at 493,000 tonnes of zinc and 135,000 tonnes of lead concentrates. The company used the positive results to begin work on a bankable feasibility study and submission for mine permitting.

In Nov/2009 Overland Resources released the results of Heavy Liquid Separation (HLS) test work conducted by an independent Canadian laboratory. HLS is used in the laboratory to simulate the process of Dense Media Separation. Tests completed on various crush sizes showed that over 90% of the sample was rejected as waste while over 80% of the zinc metal was recovered. In all cases this resulted in an upgrade of the zinc grade of at least eight times that of the initial sample head grade of 2.4% zinc. The Dense Media Separation beneficiated material could be readily processed further through the plant currently proposed for the Andrew Base Metal project. In Dec/2009 the company announced that they would fund a definitive feasibility study into the development of the project.

The 2010 diamond drill program was focused on defining and evaluating the Darcy deposit and the Darin zone. The Darcy deposit is located approximately 600 m southeast of the Andrew deposit. Drilling at the Darcy deposit increased the known strike length to over 400 m, doubling the previously known strike extent. The Darin deposit is located approximately 2,000 m southeast of the Andrew deposit. Drilling undertaken in 2010 greatly improved the understanding of the geological controls on mineralization. Overburden test pits dug on the Andrew deposit helped establish soil mechanics and permafrost conditions for the feasibility study. The majority of drill holes collared on the Andrew deposit were undertaken to collect hydrogeological and geotechnical data for planned infrastructure associated with the feasibility study.

In Feb/2011 Overburden Resources released an updated JORC compliant resource for the Darcy deposit and an inaugural for the newly defined Darin deposit. Given that no new diamond drilling was carried out on the Andrew deposit, its JORC compliant resource remained unchanged.

The 2011 diamond drill program targeted vertical and lateral extensions of the high grade Andrew and Darcy deposits where mineralization at both deposits remained open in all directions following the 2010 drill program. Eleven holes targeted the Andrew Northeast zone located approximately 1,000 m to the northeast. The Andrew Northeast zone was defined by a zinc in soil anomaly which extends approximately 2,000 m to the northeast of the Andrew deposit. Drilling intersected a significant amount of brecciation and vein infill textures similar to those observed at the Andrew and Darcy deposits. Drilling on the Andrew deposit indicates that thick zones of high grade mineralization continue at depth and that the mineralized system continues beyond the bounds of the current resource at the deposit.

In Mar/2012 Overland Resources released an updated JORC compliant resource for the Andrew and Darcy deposits. Given that no new diamond drilling was carried out on the Darin deposit its JORC compliant resource remained unchanged. Incorporating a 2% zinc cut-off, the entire Yukon Base Metal project (Andre, Darcy and Darin Deposits) hosts a total JORC compliant mineral resource estimate of 13.7 million tonnes grading 5.3% zinc and 0.9% lead or 13.7 million tonnes at 6.2% zinc equivalent. At the Andrew deposit the 2011 diamond drill program extended the eastern end of the known mineralization whilst closing off the western end of the deposit. The updated measured, indicated and inferred JORC code compliant resource for the deposit increased 7% to 7.8 million tonnes grading 5.8% zinc and 1.4% lead. (See reserve/resource section for each deposit for breakdown of various resource classifications).

In Jun/2012 Overland Resources released an updated mining study for the Yukon Base Metal Project which included the Andrew, Darcy and Darin deposits. The plan called for separate open pits at the Andrew and Darcy deposits. The plan also updated many of the monetary details of the mining plan. The main conclusion of the plan was that a sustained long term improvement in both zinc and lead metal prices will be required to provide a suitable return to the company. Thus the company decided to suspend all further exploration and mine permitting work on the project and "mothball" the project until economic conditions improved.

Work History

Date	Work Type	Comment
6/13/2012	Studies	Company released updated JORC compliant resource estimates for Andrew and Darcy deposits.
12/31/2008	Drilling	134 holes (2,3425 m)
12/31/2007	Drilling	10 holes (2,800 m)
12/31/2002	Drilling	8 holes (1,838.3 m)
12/31/2002	Geochemistry	
12/31/2001	Ground Geophysics	Also magnetics.
12/31/2001	Geochemistry	
12/31/2001	Drilling	15 holes (2,717.7 m) total. Ten holes (2,021.46 m) tested Andrew showing.
12/31/2001	Geology	
12/31/2001	Geochemistry	
12/31/2001	Other	
12/31/2000	Airborne Geophysics	Also magnetic survey, completed winter of 2000 and 2001.
12/31/1999	Geochemistry	Chip sampled trenches.
12/31/1999	Trenching	J showing
12/31/1996	Geochemistry	Grab samples.
12/31/1996	Other	
12/31/1969	Development, Surface	Company constructed Winter Road to property.
12/31/1969	Geology	
12/31/1969	Ground Geophysics	Also magnetics.
12/31/1969	Trenching	
12/31/1969	Airborne Geophysics	Also magnetic.
12/13/2012	Studies	
12/13/2011	Studies	Updated JORC compliant resource estimate for Andrew and Darcy deposits and intial compliant resource estimate for newly defined Darin deposit.
12/13/2011	Drilling	74 holes (10,437 m). Twenty nine holes tested Andrew and Darcy deposits. Eleven holes tested Andrew Northeast zone. remaining holes collected geotechnical and hydrogeological data.
12/13/2010	Trenching	Twenty-two test pits dug to bedrock.
12/13/2010	Drilling	Eleven holes drilled for hydogeological information, two holes drilled to test for mineralization at depth.
12/13/2010	Geochemistry	Sampled northeast of Andrew deposit which became Northeast zone.
12/13/2009	Lab Work/Physical Studies	Carried preliminary metallurgical work.
12/13/2009	Studies	
12/13/2008	Studies	Updated JORC compliant resource calculation released for Andrew deposit.
12/13/2008	Geochemistry	Also soil and silt samples. Collected property wide.
12/13/2008	Geology	
12/13/2008	Other	
12/13/2007	Studies	Overland Resources calculated intial JORC compliant resource for newly defined Andrew deposit.
12/13/2007	Geochemistry	
12/13/2007	Geology	
12/13/2007	Geochemistry	
12/13/2007	Other	
12/13/1969	Geochemistry	Also some soil sampling completed around Andrew showing.
1/1/2009	Studies	Carried out update JORC compliant resource estimate for Andrew and initial JORC compliant resource estaimate for newly defined Darcy deposit.

Assessment Reports that overlap occurrence

Report				Holes	Meters

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
096194	2011	2011 Assessment Report Geological and Geochemical Surveying on the Selous Claims	Diamond - Drilling, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology	68	1414.04
095705	2010	Geological, Geochemical and Drilling Assessment Report for Quartz Mining Claims Grouping HM02805	Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Metallurgical Tests - Lab Work/Physical Studies, Prospecting - Other, Environmental Assessment/Impact - Studies, Geotechnical - Studies		3712.10
095648	2008	Geological, Geochemical and Diamond Drilling Assessment Report on the Yukon Base Metal Project	Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other, Backhoe - Trenching	135	23424.70
095645	2007	Diamond Drilling Assesssment Report on the AMB Claims (Part of the Andrew Property), Mayo Mining District Yukon Territory	Diamond - Drilling, Drill Core - Geochemistry	10	2979
094363	2002	Report of Assessment Work Conducted on the Andrew Property, Mayo Mining District Yukon Territory	Diamond - Drilling, Soil - Geochemistry	8	1838.30
094274	2001	Exploration Report on the Andrew Property, Mayo Mining District	Diamond - Drilling, Soil - Geochemistry, Bedrock Mapping - Geology, Gravity Survey - Ground Geophysics, Magnetics - Ground Geophysics, Prospecting - Other	15	2717.66
095285	1999	Andrew Claim Group Trenching Report	Rock - Geochemistry, Soil - Geochemistry, Handblast - Trenching		
093881	1996	Andrew Claim Group Prospecting and Geochemical Report	Bedrock Mapping - Geology, Prospecting - Other		
019011	1968	Airborne Geophysical Survey Report (Magnetic, Electromagnetic)	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics		
019013	1968	Geochemical Report Lad Mineral Claim Group	Soil - Geochemistry, Line Cutting - Other		
018941	1968	Hess Project Report 1968 Laforce Lake - Mount Selous Area	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Regional Bedrock Mapping - Geology, Prospecting - Other		
019809	1968	Hess Area Project Proposed Property Follow-Up 1968 Field Season	Research/Summarize - Pre-existing Data		
018947	1967	Hess River Project Report	Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology		
019032	1967	Hess River Project Report	Data Compilation - Pre-existing Data		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC008106	Geochemical survey map - Zinc - 105K-16 - Sheldon project		Property File Collection	Geochemical Map
YEG1987	Yukon Exploration 1987	5.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1999_OV	Yukon Mining & Exploration Overview 1999	25.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2001_OV	Yukon Mining & Exploration Overview 2001	12, 25.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2002_OV	Yukon Mining, Development & Exploration Overview 2002	20, 24, 26.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2007_OV	Yukon Exploration and Geology Overview 2007	22, 37,41.	Yukon Geological Survey	Annual Report
YEG2008_OV	Yukon Exploration and Geology Overview 2008	18, 32, 36.	Yukon Geological Survey	Annual Report
YEG2009_OV	Yukon Exploration and Geology Overview 2009	53.	Yukon Geological Survey	Annual Report
YEG2010_OV	Yukon Exploration and Geology Overview 2010	53, 63, 64.	Yukon Geological Survey	Annual Report
YEG2011_OV	Yukon Exploration and Geology Overview 2011	41-42, 70, 72.	Yukon Geological Survey	Annual Report
2003-9(D)	Yukon Digital Geology (version 2)		Yukon Geological Survey	Open File (Geological - Bedrock)
ARMC008105	Geochemical survey map - Lead - Sheldon project		Property File Collection	Geochemical Map
ARMC014558	Regional geology - (1969 prospecting areas) - Lad area - Hess project - Fig. No. 30		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC014555	Ground magnetometer values (gammas) - Showing K, L area - Lad mineral claims - Hess project - Fig. No. 27		Property File Collection	Geophysical Map
ARMC014550	Zinc contour map (east) - Lad mineral claim group - Hess region - Ross River (Y.T.) - Fig. No. 22		Property File Collection	Geochemical Map
ARMC013626	Report on 1968 field work (geological, geochemical, geophysical) - Lad claims 3-12, 19-34, 45-62, 65-228 - Fieldwork done July 23 to Sept 28, 1968		Property File Collection	Report
ARMC016754	Geological map - 105K/16 - Mount Selous		Property File Collection	Geoscience Map (Geological -

6754				Bedrock)
ARMC013625	Mineralogical study & trend surface analysis of the Lad group (part of thesis)		Property File Collection	Report
ARMC013595	Monthly progress report - July, 1969 - Hess OEX and Lad group		Property File Collection	Report
ARMC014548	Set of maps on 1968 field work - Hess project - Ross River, YT - Lad mineral claim group		Property File Collection	Geoscience Map (General)
ARMC016750	Geochemical results and claim group map of sheet 105K/16		Property File Collection	Geochemical Map
ARMC016751	Geochemical results and claim group map of sheet 105K/16 - Revised		Property File Collection	Geochemical Map
ARMC014560	Key map - Claims - Lad mineral claim group - Ross River (Y.T.)		Property File Collection	Geoscience Map (General)
ARMC014563	Key map of Lad mineral claims - Hess area - Ross River (Y.T.)		Property File Collection	Geoscience Map (General)
ARMC014559	Lad mineral claim group (east) - Hess region - Ross River (Y.T.)		Property File Collection	Geoscience Map (General)
ARMC014569	Lad mineral claim group - Hess region - Ross River (Y.T.)		Property File Collection	Geoscience Map (General)
ARMC016753	Geochemical results map - 105K/16 - Mount Selous		Property File Collection	Geochemical Map
ARMC014562	Ground magnetometer survey - Lad mineral claim group - Hess properties		Property File Collection	Geophysical Map
ARMC014549	Lead contour map (east) - Lad mineral claim group - Hess region - Ross River (Y.T.) - Fig. No. 21		Property File Collection	Geochemical Map
ARMC014557	Reconnissance silt & soil sample results - (1969 sampling) - Lad mineral claims - Hess project - Fig. No. 29		Property File Collection	Geochemical Map
ARMC014561	Geology, Lad east grid area - Lad mineral claim group - Hess region - Ross River (Y.T.) - Fig. 18		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC014566	Line grid showing sample values - Lad claims		Property File Collection	Geoscience Map (General)
ARMC014567	Line grid showing sample values - Lad claims		Property File Collection	Geoscience Map (General)
ARMC016752	Geochemical sample stations map - 105K/16 - Mount Selous		Property File Collection	Geochemical Map
ARMC014552	Geochemical soil sample survey - Copper contour map - Showings K, L area - Lad mineral claims - Hess project - Fig. No. 24		Property File Collection	Geochemical Map
ARMC014554	Geochemical soil sample survey - Cu, Pb, Zn, Mn. values map - Showings K, L area - Lad mineral claims - Hess project - Fig. No. 26		Property File Collection	Geochemical Map
ARMC014551	Geochemical soil sample survey - Cu, Pb, Zn, Mn. values map - Showings K, L area - Lad mineral claims - Hess project - Fig. No. 23		Property File Collection	Geochemical Map
ARMC014553	Geochemical soil sample survey - Lead contour map - Showings K, L area - Lad mineral claims - Hess project - Fig. No. 25		Property File Collection	Geochemical Map
ARMC014556	Contour map - Ground magnetics - Showing K, L area - Lad mineral claims - Hess project - Fig. No. 28		Property File Collection	Geophysical Map
ARMC014565	Copper contour map (east) - Lad mineral claim group - Hess region - Fig. 20		Property File Collection	Geochemical Map
ARMC014564	Cross section sketch of showing "F" - Lad mineral claim group - Ross River (Y.T.) - Fig. 5		Property File Collection	Geoscience Map (General)

Resource/Reserve

Year	Zone	Type	Commodity	Grade	Tonnage	Amount	Reported Amount	43-101 Compliant	Cut-off
2012	Andrew Zinc Deposit (Open Pit)	Inferred	zinc	4.2 %	556,000	23352	Yes	Yes	2% Zn
JORC (Australian) compliant resource estimate. Overland Resources News Release, March 12, 2012.									
2012	Andrew Zinc Deposit (Open Pit)	Indicated	zinc	6.1 %	5,437,000	331657	Yes	Yes	2% Zn
JORC (Australian) compliant resource estimate. Overland Resources News Release, March 12, 2012.									
2012	Andrew Zinc Deposit (Open Pit)	Measured	zinc	5.3 %	1,769,000	29468	Yes	Yes	2% Zn
JORC (Australian) compliant resource estimate. Overland Resources News Release, March 12, 2012.									
2012	Total Yukon Base Metal Project (Open Pit)	Not Defined	zinc	5.8 %	11,045,000	640610	Yes	Yes	2% zn
JORC (Australian) compliant resource estimate for the entire Yukon Base Metal Project. Includes Measured, Indicated and Inferred resources from Andrew Zinc, Darcy Zinc and Darin Zinc deposits. Company has indicated that there is a possibility of underground resources but feasibility study was stopped before an official mine plan was developed. Overland Resources News Release, March 12, 2012. Project currently mothballed.									
2012	Total Andrew Zinc (Open Pit)	Not Defined	zinc	6.2 %	7,200,000	446400	Yes	Yes	2% zinc

JORC (Australian) compliant resource estimate for the entire Andrew Zinc deposit. Includes Measured, Indicated and Inferred resources. Company has indicated that there is a possibility of underground resources but feasability study was stopped before an official mine plan was developed. Overland Resources News Release, March 12, 2012. Deposit currently mothballed.									
2012	Andrew Zinc Deposit (Open Pit)	Inferred	lead	.6 %	556,000	3336	Yes	Yes	2% Zn
JORC (Australian) compliant resource estimate. Overland Resources News Release, March 12, 2012.									
2012	Andrew Zinc Deposit (Open Pit)	Indicated	lead	1.4 %	5,437,000	76118	Yes	Yes	2% Zn
JORC (Australian) compliant resource estimate. Overland Resources News Release, March 12, 2012.									
2012	Andrew Zinc Deposit (Open Pit)	Measured	lead	1.6 %	1,769,000	28304	Yes	Yes	2% Zn
JORC (Australian) compliant resource estimate. Overland Resources News Release, March 12, 2012.									
2012	Total Andrew Zinc (Open Pit)	Not Defined	lead	1.5 %	7,200,000	108000	Yes	Yes	2% zinc
JORC (Australian) compliant resource estimate for the entire Andrew Zinc deposit. Includes Measured, Indicated and Inferred resources. Company has indicated that there is a possibility of underground resources but feasibility study was stopped before an official mine plan was developed. Overland Resources News Release March 12, 2012. Deposit currently mothballed.									
2012	Total Yukon Base Metal Project (Open Pit)	Not Defined	lead	1 %	11,045,000	110450	Yes	Yes	2 % zinc
JORC (Australian) compliant resource estimate for the entire Yukon Base Metal Project. Includes Measured, Indicated and Inferred resources from Andrew Zinc, Darcy Zinc and Darin Zinc deposits. Company has indicated that there is a possibility of underground resources but feasibility study was stopped before an official mine plan was developed. Overland Resources News Release, March 12, 2012. Project currently mothballed.									
2009	Andrew Zinc Deposit (Open Pit)	Inferred	zinc	7 %	900,000	63000	Yes	Yes	2% zinc
JORC compliant resource (Australia); Overland Resources News Release, 20 May/2009, calculated by Mr. Peter Ball, member of the Australian Institute of Mining and Metallurgy and Manager of Data Geo.									
2009	Andrew Zinc Deposit (Open Pit)	Indicated	zinc	6.2 %	4,690,000	290780	Yes	Yes	2% zinc
JORC compliant resource (Australia); Overland Resources News Release, 20 May/2009, calculated by Mr. Peter Ball, member of the Australian Institute of Mining and Metallurgy and Manager of Data Geo.									
2009	Andrew Zinc Deposit (Open Pit)	Measured	zinc	5.4 %	1,610,000	86940	Yes	Yes	2% zinc
JORC compliant resource (Australia); Overland Resources News Release, 20 May/2009, calculated by Mr. Peter Ball, member of the Australian Institute of Mining and Metallurgy and Manager of Data Geo.									
2009	Andrew Zinc Deposit (Open Pit)	Inferred	lead	.7 %	900,000	6300	Yes	Yes	2% zinc
JORC compliant resource (Australia); Overland Resources News Release, 20 May/2009, calculated by Mr. Peter Ball, member of the Australian Institute of Mining and Metallurgy and Manager of Data Geo.									
2009	Andrew Zinc Deposit (Open Pit)	Indicated	lead	1.6 %	4,690,000	75040	Yes	Yes	2% zinc
JORC compliant resource (Australia); Overland Resources News Release, 20 May/2009, calculated by Mr. Peter Ball, member of the Australian Institute of Mining and Metallurgy and Manager of Data Geo.									
2009	Andrew Zinc Deposit (Open Pit)	Measured	lead	1.7 %	1,610,000	27370	Yes	Yes	2% cutoff
JORC compliant resource (Australia); Overland Resources News Release, 20 May/2009, calculated by Mr. Peter Ball, member of the Australian Institute of Mining and Metallurgy and Manager of Data Geo.									
2008	Andrew Zinc Deposit (Open Pit)	Indicated	germanium	18.5 g/t	4,100,000	75850000	Yes	Yes	3% zinc
JORC (Australian) compliant resource. From Annual Financial Report - Overland Resources Ltd 2008 Report to Shareholders dated June 30, 2008 p. 4. Also reported in April 18, 2008 press release.									
2008	Andrew Zinc Deposit (Open Pit)	Measured	germanium	26.3 g/t	88,000	2314400	Yes	Yes	3% zinc
JORC (Australian) compliant resource. From Annual Financial Report - Overland Resources Ltd 2008 Report to Shareholders dated June 30, 2008 p. 4. Also reported in April 18, 2008 press release.									
2008	Andrew Zinc Deposit (Open Pit)	Inferred	lead	1.3 %	856,000	11128	Yes	Yes	3% zinc
JORC (Australian) compliant resource. From Annual Financial Report - Overland Resources Ltd 2008 Report to Shareholders dated June 30, 2008 p. 4. Also reported in April 18, 2008 press release.									
2008	Andrew Zinc Deposit (Open Pit)	Inferred	zinc	6.6 %	856,000	56496	Yes	Yes	3% zinc
JORC (Australian) compliant resource. From Annual Financial Report - Overland Resources Ltd 2008 Report to Shareholders dated June 30, 2008 p. 4. Also reported in April 18, 2008 press release.									
2008	Andrew Zinc Deposit (Open Pit)	Indicated	zinc	7.7 %	4,100,000	315700	Yes	Yes	3% zinc
JORC (Australian) compliant resource. From Annual Financial Report - Overland Resources Ltd 2008 Report to Shareholders dated June 30, 2008 p. 4. Also reported in April 18, 2008 press release.									
2008	Andrew Zinc Deposit (Open Pit)	Measured	zinc	7.2 %	88,000	633.60	Yes	Yes	3% zinc
JORC (Australian) compliant resource. From Annual Financial Report - Overland Resources Ltd 2008 Report to Shareholders dated June 30, 2008 p. 4. Also reported in April 18, 2008 press release.									
2008	Andrew Zinc Deposit (Open Pit)	Inferred	germanium	11.7 g/t	856,000	10015200	Yes	Yes	3% zinc
JORC compliant resource; Overland News Release 18 Apr/2008. Resource calculated by Mr. Peter Ball, member of the Australian Institute of Mining and Metallurgy, Manager of Data Geo.									
2008	Andrew Zinc Deposit (Open Pit)	Inferred	silver	4.1 g/t	856,000	3509600	Yes	Yes	3% zinc
JORC compliant resource; Overland News Release 18 Apr/2008. Resource calculated by Mr. Peter Ball, member of the Australian Institute of Mining and Metallurgy, Manager of Data Geo.									
2008	Andrew Zinc Deposit (Open Pit)	Indicated	silver	5.7 g/t	4,100,000	23370000	Yes	Yes	3% zinc
JORC (Australian) compliant resource. From Annual Financial Report - Overland Resources Ltd 2008 Report to Shareholders dated June 30, 2008 p. 4. Also reported in April 18, 2008 press release.									
2008	Andrew Zinc Deposit (Open Pit)	Measured	silver	4.9 g/t	88,000	431200	Yes	Yes	3% zinc
JORC (Australian) compliant resource. From Annual Financial Report - Overland Resources Ltd 2008 Report to Shareholders dated June 30, 2008 p. 4. Also reported in April 18, 2008 press release.									
2008	Andrew Zinc Deposit (Open Pit)	Indicated	lead	1.8 %	4,100,000	73800	Yes	Yes	3% zinc
JORC (Australian) compliant resource. From Annual Financial Report - Overland Resources Ltd 2008 Report to Shareholders dated June 30, 2008 p. 4. Also reported in April 18, 2008 press release.									
2008	Andrew Zinc Deposit (Open Pit)	Measured	lead	1 %	88,000	880	Yes	Yes	3% zinc
JORC (Australian) compliant resource. From Annual Financial Report - Overland Resources Ltd 2008 Report to Shareholders dated June 30, 2008 p. 4. Also reported in April 18, 2008 press release.									
2007	Andrew Zinc Deposit (Undetermined)	Inferred	zinc	5.67 %	5,216,484	295775	Yes	Yes	3% zinc
Inaugural JORC (Australian) compliant resource estimate based on Norada's 2001-2002 drilling. From March 15, 2007 press release.									
2007	Andrew Zinc Depodit (Undetermined)	Inferred	germanium	13.87 g/t	5,216,484	72352633.08	Yes	Yes	3% zinc
Inaugural JORC (Australian) compliant resource estimate based on Norada's 2001-2002 drilling. From March 15, 2007 press release.									

2007	Andrew Zinc Deposit (Undetermined)	Indicated	germanium	22.21 g/t	702,422	15600792.62	Yes	Yes	3% zinc
Inaugural JORC (Australian) compliant resource estimate based on Norada's 2001-2002 drilling. From March 15, 2007 press release.									
2007	Andrew Zinc Deposit (Undetermined)	Inferred	silver	10.01 g/t	5,216,484	52217004.84	Yes	Yes	3% zinc
Inaugural JORC (Australian) compliant resource estimate based on Norada's 2001-2002 drilling. From March 15, 2007 press release.									
2007	Andrew Zinc Deposit (Undetermined)	Indicated	silver	5.61 g/t	702,422	3940587.42	Yes	Yes	3% zinc
Inaugural JORC (Australian) compliant resource estimate based on Norada's 2001-2002 drilling. From March 15, 2007 press release.									
2007	Andrew Zinc Deposit (Undetermined)	Inferred	lead	2.17 %	5,216,484	113198	Yes	Yes	3% zinc
Inaugural JORC (Australian) compliant resource estimate based on Norada's 2001-2002 drilling. From March 15, 2007 press release.									
2007	Andrew Zinc Deposit (Undetermined)	Indicated	lead	1.01 %	702,422	7095	Yes	Yes	3% zinc
Inaugural JORC (Australian) compliant resource estimate based on Norada's 2001-2002 drilling. From March 15, 2007 press release.									
2007	Andrew Zinc Deposit (Undetermined)	Indicated	zinc	7.09 %	702,422	49802	Yes	Yes	3% zinc
Inaugural JORC (Australian) compliant resource estimate based on Norada's 2001-2002 drilling. From March 15, 2007 press release.									