Mining District File Summary Sheet

ID_NUMBER	60002582
DISTRICT	Segura Ranch
DIST_NO	4260
COUNTY	Nye
TITLE If not obvious	Bisoni McKay Vanadium Property, Nye County, Nevada, Phase II Technical Report
AUTHOR	Ullmer E
PAGES (including summary sheet)	66
DATE OF DOC(S)	2008
FF Only?	N
MULTI_DIST (Y) / N? Cross-references:	60002583/1990
QUAD_NAME	Snowball Ranch 7.5'
P_M_C_NAME (mine, claim & company names)	Bisoni McKay Vanadium Property; Noranda; Stina Resources, Ltd; Hecla Mining Company; Bisoni Property; Bisoni McKay Project
COMMODITY If not obvious	Vanadium
NOTES	Technical Report; NI 43-101 Report; geology; assays; 65 pg + 1 SS pg = 66

Location: Digital Only

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	Initials	Date
SS:	DD	1/22/2010
DB:	mah	1/27/10
SCANNED:	MT	2.3.2010
QA		

Revised: 1/20/10

BISONI McKAY VANADIUM PROPERTY

Nye County, Nevada

Phase II Technical Report

for

Stina Resources Ltd.

February 20, 2008

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CONSENT OF AUTHOR

TO: British Columbia Securities Commission,
Alberta Securities Commission

I, Edwin Ullmer, do hereby consent to the filing of the written disclosure of the Technical Report "Bisoni McKay Vanadium Property, Nye County, Nevada, USA" dated January 20, 2008 (the "Technical Report"), and to the filing of the Technical Report with the securities authorities referred to the production of news releases regarding this report. Additionally, I consent to the filing of this Phase II Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files.

Edwin Ullmer

Edwin Ullmer, Geologist

February 20, 2008

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SUMMARY

In June of 2007, Edwin Ullmer, Consultant Geologist from Westminster, Colorado was engaged by Stina Resources Ltd, (Stina) based in Vancouver, BC to prepare Canadian National Instrument (NI) 43-101 Technical Report on the Bisoni McKay Vanadium property in Nye County, Nevada, U.S.A. in accordance with the reporting requirements of NI 43-101. This report is based on information from exploration programs by mining and geological professionals, a review and interpretation of existing data and documents from previous mineral exploration programs, and a metallurgical study by Stina. Vanadium International Corporation (VIC) of Reno, Nevada owns the property and Stina has an exclusive option to acquire it.

The author is responsible for the review and preparation of the following Technical Report. James Wall, Controller of Stina, provided all available reports and data records from files of previous exploration and Stina-funded exploration from 2004 to present. Much of the latter information was generated and collected by the late John James, coauthor of the 2005 and 2006 Technical Reports. He was a mining engineer and principle of JAMines Inc. based in Lakewood, Colorado, U.S.A.

The Bisoni McKay vanadium property is located in the northern limits of Nye County in central Nevada near the Eureka County boundary (Figure 1). The property is situated about 40 miles south of the town of Eureka and about 130 miles due south of Carlin, Nevada. The claims are located within Township 14 N. and Range 52 E. in Sections 8, 17, 18, 19 20, and 30. The prospect is approximately centered on the intersection of latitude 39°04'45"N and longitude 116°08'00"W.

The property position consists of 37 contiguous lode claims on Bureau of Land Management administered land comprising an area of 754.13 acres (305.42 hectares)(Figure 2). The assessment obligations to the U.S. Department of the Interior – Bureau of Land Management for the Jeanette, Nan, Kitty, Willow, and the Ginsu lode claims are current and valid through September 2008.

Recorded minerals interest around the property began in 1942 with the discovery of nickel, manganese, and cobalt mineralization at the Gibellini prospect near the Bisoni McKay property (Figure 1). After some studies by the U.S. Bureau of Mines in the 1940s, Union Carbide discovered vanadium in shale in 1956 on the Bisoni claims in the vicinity of the original mineralization. Following this, a succession of mining companies including Noranda, Hecla, and TRV-Inter-Globe Resources explored on and around the Bisoni McKay property until 1993 when the original block of claims lapsed and was subsequently restaked by VIC. Stina optioned the property in 2005. The group of prospects became known as the Central Nevada Vanadium Belt.

The vanadium mineralization is hosted by carboniferous shale or oxidized (weathered) carboniferous shale that is part of the Devonian Woodruff Formation. The host subunit in the Woodruff Fm has been named the Gibellini facies. Vanadium is typically in association with organic carbon or iron oxides. The mineralization is syngenetic and occurs as stratabound and strataform in the black shale. The vanadium-rich strata typically occurs as a contiguous series of beds estimated to be up to 300 feet thick. The

strike of the dipping beds is due north-south, and dips are eastward. In the north half of Area A (Area A-North), the area of concentrated drilling in 2007, the recorded surface dips range from near vertical and possibly overturned on the western side of the trench exposures to 60^{o} east on the east end of the trenches (Figure 4). The steep dips may result from disruption along the north south fault shown in Figure 4. Vanadium minerals are seldom seen macrcoscopically; only the more colorful secondaries are occasionally observed as very fine disseminated grains. Vanadium is the only economic commodity. Other metals or anions commonly anomalous in carbonaceous (organic) black shales such as copper, zinc, molybdenum, uranium, chromium, selenium, and phosphate occur as trace anomalies but quantities always remain well below economic status.

Stina began Phase I field work in 2004 that continued through 2005 and included reverse circulation (RC) drilling, diamond drill holes (DDH) for core recovery and trench sampling. Two Technical Reports were completed for the combined 2004 and early 2005 work and for the later 2005 effort. The latter report, dated April 16, 2006, provides the background for this report of the 2007 Phase II drilling results and metallurgical study. See Figure 3 for Stina and Hecla drill holes.

The initial stage of the Phase II field work, which is of primary concern in this Technical Report, consisted of twelve reverse circulation (RC) holes that were all sited in the vanadiferous shale trend on Area A-North. See Figures 2 and 24 for Area A-North location. Three RC holes and three diamond drill core holes had been previously sited on Area A-North in 2005, as well as three RC holes on the south half of Area A (Area A-South)(see Figure 23A). The concentration of the 2007 drilling within a relatively small portion of the project area was designed to evaluate and characterize the vanadium continuity, grade distribution, and spacial characteristics of the vanadiferous beds in a limited area that would give cogent information for planning exploration and development on other parts of the property.

Based on the 2007 drilling of twelve RC holes, the six 2005 RC holes, and the three 2005 core holes in Area A, an indicated resource block for V_2O_5 was estimated for most of the north half of Area A, and an inferred resource was calculated for part of the north and all of the south half (see Table 1). The resources are restricted to the limited area drilled which should not be considered a complete assessment of Area A. Drilling and the interpreted subsurface geology indicates additional vanadiferous shale will continue down-dip and north and south of the drilled grid lines.

Area A-North: The calculations using Maptek's Vulcan software resulted in indicated resources on the north half of 8,073,844 tons (t) of V_2O_5 mineralization at the 0.3% V_2O_5 cutoff. This cutoff represents a minimum of 6 lbs of V_2O_5 per ton which converts to a value \$51/t at the current average V_2O_5 price of \$8.50/lb. Breaking this down further, the average V_2O_5 grade and tonnage of the both the oxide and reduced mineralization is 0.43% (8,6 lbs/t, value \$73.10/t). Additionally low grade mineralization exceeding the cutoff of 0.2% or 4 lbs/t encompasses is a combined oxide and reduced ore averaging 0.39% or 7.8 lbs/t of V_2O_5.

Area A-Inferred: The inferred mineralization for both the north and south halves at the 0.3% V_2O_5 cutoff totals 5,490,356 tons at 0.39%. The total combined resource is 13,564,200 tons at 0.46% V_2O_5.

TABLE 1
RESOURCE SUMMARY

	0.1% Cutoff	0.2% Cutoff	0.3% Cutoff
	Indicated Resource - Area A-North		
Tons	13,455,000	10,627,000	8,074,000
	Inferred Resource Area A -North		
Tons	1,065,000	893,000	746,000
	Inferred Resource Area A-South		
Tons	8,216,000	6,488,000	4,744,000

INTRODUCTION

This report provides an independent evaluation of the recent exploration on the Bisoni McKay (BMK) vanadium project, Nye County, Nevada, optioned by Stina Resources Ltd. (Stina), Vancouver, British Columbia from Vanadium International Corporation (VIC), Reno, Nevada. This report was prepared for Stina under the terms set out in NI 43-101 to include the latest exploration drilling and metallurgical tests in 2006 and 2007 and documents a new resource estimate.

Stina optioned the property on January 21, 2005 because previous exploration results on the property indicated the potential for grade and tonnage of vanadium mineralization that could be profitably mined at current and projected market values. This report stresses the 2007 Phase II work completed as well as much of the relevant 2005 Phase I exploration covered in the April 16, 2006 Technical Report.

To report on the 2007 exploration, Stina engaged author Ullmer in June 2007 to append and revise the previous NI 43-101 Technical Report of the Bisoni McKay Vanadium Property dated April 16, 2006. As a contract geologist, Ullmer also coauthored the latter report, was the on-site drilling supervisor during the October-November 2005 drilling program, and undertook other field work including geological mapping on the project. Much of the information discussed in the previous Technical Report remains essentially unchanged in this report with text unrevised or with minor revisions. Most additions or changes were in the sections on mineralization, deposit types, exploration, drilling, metallurgy, mineral resources, and attending modifications on conclusions and recommendations. Also the summary, introduction, and property location sections were modified for clarity and economy.

Ullmer reviewed the new drilling information including lithology logs, analytical data from ALS Chemex of Vancouver, BC and the metallurgical tests from Hazen Research Inc., Golden, Colorado and assimilated the new data with the previous information. An experienced mineral exploration geologist conducted the 2007 drill supervision and logging. The hole locations had been planned in advance by the late John James, mining engineer and coauthor of the April 16, 2006 Technical Report as well as the former project manager. The new holes were based on results of the 2005 drilling program, and were located to detail and confirm the grade and geologic continuity for a resource assessment on a portion of the northern-most area, also identified as Area A which is part of the broad vanadiferous shale trend on project claims. Stina completed the twelve reverse circulation holes in April-May 2007 totaling 4,940 feet (1505.7 meters). They are the initial stage of the Phase II exploration program. The sample results from these holes as well as several from the 2005 program were used to achieve a resource estimate for the limited area investigated in Area A.

The United States Geological Survey ("USGS") and the Nevada Bureau of Mines ("NBM") have a considerable body of published data related to the central Nevada Vanadium Belt in Eureka and Nye Counties, Nevada. Other historic data reviewed in association with preparation of this report include data available to the public, in private company reports, and reports and documents held by JAMine (John James, president), the company formerly managing the project.. The data reviewed are listed in the "References" section of this report. Comments on those of special interest that are not already included in this report are included below the individual references.

Current vanadium economics: In January 2006, U.S. domestic pricing for V_2O_5 ranged from $US8.25 to $US8.86/lb compared with $US8.92 to $US9.72 in December 2005. Current prices (as of January 10, 2008) still remain between $US8.00 and $US9.00/lb (see Northern Miner quotes).

Terms of Reference

Stina requested that the author review the Bisoni McKay Project and prepare a technical summary of the project. The report has been prepared under the guidelines of National Instrument 43-101 and is to be submitted as a Technical Report to the TRX Venture Exchange ("TSX") and the British Columbia Securities Commission (BCSC) as a exploration update of the previous April 16, 2006 Technical Report.

The author prepared this report based upon information believed to be accurate at the time of completion, but which is not guaranteed. The author has relied on the validity of geologic observations and interpretations by Stina and VIC professionals, and on contractors to perform analytical work (ALS Chemex) , ore processing tests (Hazen Research, Inc.) and in the mineral resource estimations using the Vulcan program (Maptek, Inc.). All the contracting organizations are either certified and/or have extensive professional credentials in the mining industry. The geologists and mining engineers that have worked on the project also have long professional histories. Some reliance was also placed on collected historic exploration documents and data from operating companies including Union Carbide Nuclear Corp., Noranda, Hecla Mining Company, TRV Minerals, Inter-Globe Resources, and from other U.S. government and industry published sources. The available historic analytical data was considered to be reliable as an influential exploration aid when it matched the tenor of Stina's grades, but the data is not included in the NI 43-101 indicated and inferred resource estimation discussed in the "Mineral Resource and Mineral Reserve Estimate" section.

PROPERTY LOCATION AND DESCRIPTION

No change from April 16, 2006 43-101 Technical Report for Bisoni McKay Vanadium Project except to add that the title report has been provided by Richard Thompson, Attorney and Counselor at Law, located at 6121 Lakeside Dr., Reno, Nevada, 89511 (Ph. [775] 825-4300). The claim renewal documents for 2007 are included in Appendix 1 of this document. The location map, Figure 1, is included in the "Figures" section of this report.

ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

No change from the April 16, 2006 43-101 Technical Report for the Bisoni McKay Vanadium Project.

HISTORY

In 1942, Louis Gibellini discovered a nickel-cobalt-manganese deposit located just east of what is now the Gibellini Property. The US Bureau of Mines ("USBM") studied the nickel-cobalt-vanadium deposit in 1944 and again in 1946. Union Carbide Nuclear Corporation (UCNC) made the discovery of vanadium on the Bisoni claims in 1956.

UCNC conducted the first extensive evaluation of the area of the Bisoni and Bisoni McKay Properties in 1958 and 1959 (Roberts et al, 1967, Davis & Ashizawa, 1959, Davidson & Lakin 1961a, 1961b, Hausen, 1960). Results of UCNC's drilling are shown in Table 2.

Table 2
Union Carbide Nuclear Corporation

Drilling Results 1958-1959

Hole	Depth ft	V2O5 %
1	100	0.34
3	195	0.55
8	280	0.38
9	250	0.43
11	240	0.4
12	200	0.38
13	280	0.32
Average	240	0.4

Several major mining companies subsequently explored and undertook extensive geologic and metallurgical investigations on the Bisoni and Gibellini Properties. These companies included Kerr McGee Oil, Transworld Resources, Atlas Minerals, and

Noranda. In the early seventies, Noranda carried out extensive metallurgical research on the vanadiferous ores at the Colorado School of Mines Research Institute (“CSMRI”).

In 1974, on the basis of prevailing metal prices, Noranda decided that the properties were uneconomic and withdrew.

Hecla Mining Company (1970s):
The most comprehensive exploration program was carried out by Hecla Mining Company (“Hecla”) during the 1970s. Extensive trenching (these trenches remain mostly open and are plotted across the project area on Figure 3) and 19 reverse circulation holes were drilled during the 1970s (see Figure 3 for Hecla hole locations project-wide). The trenches later sampled by Stina are those excavated by Hecla. It is not known whether Hecla’s work preceded that of Bethlehem in 1976. Technical Report 2005 included a discussion of the results of Hecla’s drilling in Section 13.2, a tabulation of assay results and logs in Table 13.2, and a summary of the original logs, albeit incomplete, was included as Appendix 15.

Exploration and Ownership 1980s and 1990s:
TRV Minerals and Inter-Globe Resources optioned the properties in 1981 and conducted bulk sampling for heap leach testing of the vanadiferous ore at BC Research. Subsequently, the three properties were returned to the original owners. In 1993, the claims covering the Bisoni McKay Property lapsed and were then restaked by VIC. Apart from the claims controlled by VIC, the Gibellini heirs continue to control claims over the nearby Gibellini and Bisoni properties.

Prior Estimates of “Mineral Inventories”:
All estimates of “resources” and/or “reserves”, from past exploration do not satisfy the requirements of Canadian National Instrument 43-10 1 or the U.S. Securities and Exchange Commission (“SEC”) , are conceptual in nature, and, as such, cannot be relied upon for a current resource estimate. The location of Hecla drill holes that are known are plotted on maps for Figures 3, 4, 5, and 6. Figures 3, 4 and 6 include the area drilled by Stina in 2007.

Table 3 Hecla 1970s Historic Vanadium Inventory Estimate Bisoni McKay Property			
Number of Drill Holes	**Mineral Inventory (st)**	**V_2O_5 %**	**V_2O_5 Resource Estimate in lbs**
19	**6,100,000 tons**	**0.39%**	**4.758×10^6**

Hecla’s mineral inventory reported for the Bisoni McKay deposit came from an estimate reported to be calculated by Hecla in the 1970s from its 19 reverse circulation (RC) drill holes (See Table 3 above and Figure 3 for Hecla hole locations). The grades were derived from drill cutting samples. The parameters and estimating method used in Hecla’s estimate are not known such as strike length(s), widths, dilution, cut-off grade(s), rock densities, mineralization continuity, compositing procedures, etc. The distances between most of the 19 holes are too great and the total tonnage too small to infer mineralization continuity from hole to hole throughout the project drilled by Hecla, but the average V_2O_5 grade compares well with Stina's typical grade range from the 2005 and 2007 drill samples. Without further information the reliability of the estimate is questionable.

The categorization of Hecla's historical estimate is not available, and the estimate is not considered that of a Mineral Reserve or Resource within the context of Canadian National Instrument 43-101. The estimate is not presented here as a mineral resource, but it is appropriate to take the drilling data and the grade estimate into consideration when determining the potential of exploration targets for Stina.

Stina's Phase I field work began in 2004, and first Technical Report in 2005 for the Bisoni McKay project dealt with the results of that partial Phase I program.

GEOLOGICAL SETTING

Regional Geology

The north-trending Antelope, Diamond and Fish Creek Ranges of southeast Eureka County and northwest Nye County are underlain primarily by Paleozoic sedimentary rocks of Ordovician, Silurian and Devonian age (Roberts et al, 1967; Hose, 1983)). The Bisoni McKay Vanadium Property is located at the southeast end of the Fish Creek Range. These early Paleozoic sediments were deposited in a broad geosyncline that covered most of Nevada. In this sequence of rocks there are two broad lithofacies; an eastern carbonate facies and a western siliceous/volcanic assemblage. During the Antler Orogeny, extending from the upper Devonian to lower Pennsylvanian Periods, these sediments were folded and a western siliceous assemblage was thrust over the eastern assemblage along the Roberts Mountain Thrust. The Roberts Mountain Thrust and portions of the upper thrust plate are mapped in the southern Fish Creek Range near the Bisoni McKay Project. Subsequently, a syn- to post-orogenic assemblage of clastic and minor carbonate sediments were deposited east of the orogenic highlands during the Mississippian to Permian Periods.

The host rocks for the Bisoni McKay vanadium mineralization are part of the Woodruff Formation, an upper Devonian sequence of fine-grained clastics that are reported to have been deposited just before, or at the beginning of, the Antler orogeny and associated thrusting. The USGS Cockalorum Wash Quadrangle (Hose, 1983) places the Woodruff Formation rocks within the lower plate assemblage of the Roberts Mountain Thrust geometry. In contrast with Hose (1983), the fossil evidence and deformation suggest that the clastic sediments and chert at the Gibellini mine may be part of the upper plate of the Roberts Mountain thrust which has been preserved by down-faulting of parts of the upper plate into the lower plate strata (Roberts et al, 1967).

Intermittent orogenic movements during the Paleozoic and Mesozoic resulted in additional folding and thrusting of both the western (upper) and eastern (lower) assemblages. Felsic stocks intruded along broad structural trends during the Mesozoic and Tertiary. These stocks are responsible for silver-gold-lead-zinc replacement-type mineralization in the eastern carbonate and shale assemblage and for gold-copper-barite mineralization in the western siliceous assemblage. Tertiary volcanics also host iron ore and silver deposits.

In the vicinity of the Bisoni McKay Property located on the east flank of the southern tip of the Fish Creek Range, Tertiary volcanic and sedimentary rocks unconformably overlie the older rocks, especially in the basin valley east of the project. They do not, however, interfere with current exploration on the property. Quaternary alluvium partly fills the valley, and gravel deposits blanket the pediment bedrock surface on the flanks of the range.

The three known deposits of the Central Nevada Vanadium Belt all occur in the Woodruff Formation within the unit known as the Gibellini facies which is composed mostly of carbonaceous sediments. The Woodruff Formation overlies Late Devonian limestone and extends in scattered outcrops from the town of Eureka southward for over 50 miles. At the Bisoni McKay project the carbonate unit is identified as the Devils Gate Limestone. The Woodruff shale/mudstone is interlayered with bedded chert and calcareous shale and minor limestone along much of its exposure length, and, therefore, it is considered a transitional lithology between eastern and western types. At the Bisoni McKay Property, the Woodruff is composed of carbonaceous shale, mudstone, siltstone and minor limey shale and sandstone.

The Fish Creek Range is structurally complex as evidenced by the fault contacts between the eastern and western assemblages along the Roberts Mountain Thrust. Tertiary high angle Basin and Range faulting or earlier faulting has preserved parts of the Woodruff Formation sequence, including the Gibellini facies, within north-south trending fault grabens or hinge fault blocks that are commonly bounded by older massive carbonate sediments. There is evidence for interpreting that the Woodruff Formation may be part of a thrust plate along the Roberts Mountain Thrust zone and that the later Basin and Range normal faulting has offset the formations of the upper thrust plate. On the project land the Woodruff and Devils Gate Limestone contact relationship is as yet uncertain, but they appear to be folded in sequence and the contact may be an unconformity, a manifestation of a regressive sedimentary succession, or even a low angle thrust plate contact. Prior to Tertiary faulting the Devils Gate Limestone, the overlying Woodruff Formation and the sandy formation above it were folded as a unit as exemplified by a north-trending fold on the Bisoni McKay Property.

Local Geology

The local geology, as currently understood, is shown on Figure 4 for Area A-North and Figure 5 for the southern area or Area B, respectively (see Figures 2 and 3 for area locations). In the project area the Devonian vanadiferous Gibellini facies and the greater Woodruff Formation are typically preserved and exposed in down-dropped fault blocks. The vanadiferous beds are mapped across the area drilled in 2004/2005 and 2007 as shown on the above maps. The Woodruff Formation is commonly juxtaposed with older, massive Devils Gate Limestone outcrops on one or both east and west sides where these rocks crop out. Most lithologic blocks near the project appear to be grabens or hinge blocks with the Woodruff Formation occupying some of the down faulted blocks. There is also evidence that the Woodruff Formation may have been involved in more dynamic structural events including possible low angle thrusting and/or slide blocks. The strike of the fault blocks trends northward in congruence with the overall Fish Creek Range structural fabric.

At the Bisoni McKay property, the Woodruff Formation is composed of carbonaceous shale and siliceous and calcareous mudstone, siltstone and minor sandstone up to several hundred feet thick. The total thickness of the Woodruff Formation (mineralized and unmineralized strata) is uncertain on the property because complete sections have not yet been drilled, but it appears to be greater than 500 feet. The primary vanadium deposition is syngenetic and occurs within a series of very fine grained clastic beds consisting of silt sized quartz grains, organic compounds (probably kerogen, as is reported to be present at the nearby Gibellini and Bisoni prospects; see “Adjacent Properties” section), minor iron oxides and pyrite. The split core of the organic shale has a fetid, oily odor. The vanadium-rich black shale beds form a tabular body of mineralized facies that follow the formation dips to undetermined depths. Typically, carbonate is only present in very minor to trace quantities mostly as $CaCO_3$ stringers except at near surface where secondary caliche deposits have formed within a few feet of the ground surface. There are scattered minor quartz veinlets, likely from the effects of diagenesis, and also a few thin felsic dikes that appear to have caused no significant alteration or effect on the mineralization. In general the mineral constituents of the shale are very fine grained and macroscopic observations are limited.

The local geology as revealed by recent drilling, surface mapping, and examination of existing trenches on the property appears to conflict with the 1983 interpretation of local geology shown on the USGS Cockalorum Wash Quadrangle (Hose, 1983). The Woodruff Formation mapped on the Cockalorum Wash quadrangle is too limited in extent and is absent where it is currently observed by Stina’s exploration. In particular, the lower Mississippian Webb Formation and, less commonly, the Antelope Range Formation are mapped over the area where the Woodruff Formation and the Gibellini facies are found on the project area. The Mississippian Webb Formation occurs below the Antelope Range Formation. The Webb Formation has not yet been recognized in the drilled areas unless the Woodruff and the Webb Formations are the same unit. The sandstone outcrops and gravel cover east and west of the mapped Woodruff trend (see “SS” on Figures 4, 6, and 24) roughly match the description of the lower units of the Antelope Range Formation.

Preliminary observations in a trench that extends across part of the fine grained clastics of the lower Woodruff Formation to the Devils Gate Limestone contact on the northern claim block suggest that the steeply east-dipping Woodruff sediments grade down to more limey shale beds as the limestone is approached. The contact may be gradational with the underlying limestone, but more likely is an unconformity or a fault, but the relationship is as yet uncertain. However, most observable and inferred Woodruff/Devils Gate contacts in Area A appear to be in the form of steep fault offsets. These faults are likely normal basin and range faults, but some may also be earlier, both steep and low angle thrust faults or early down-dropped blocks offsetting the Roberts Mountain Thrust plate. Currently there is more evidence for the latter possibilities in Area B, but more drilling in Area A could also yield more evidence of dynamic structural elements.

Observations from the 2005 drilling program showed that most Woodruff outcrops, trench exposures, bedding core angles support a preponderance of steep eastward dips Surface observations reveal that a fairly tight, north-northeast, asymmetric anticline strikes northward on the north claim block. Some core angles also show vertical and overturned bedding, some of which may be due to local contortions. In Area A-South the Devils Gate Limestone outcrops form the core of the anticline, with the Woodruff Formation shale seen flanking the east side of it, plunges to the subsurface west of core holes DDH BMK 05-01. 02, and 03. The west side of the outcrop appears to be faulted. The Woodruff-Devils Gate contact can be seen in a trench southwest of the core holes. The axis of the fold strikes to the north. (See locations of these holes and the Devils Gate Limestone outcrop on Figure 4.). In Area A-North, evidence from outcrops and drill intersections suggest that the Woodruff Formation and Gibellini facies are draped over the limestone that has plunged beneath the surface, and parts of both Woodruff shale fold limbs can be interpreted from attitude in exposures in Trenches 24 and 25. There is evidence in the trenches and from the 2007 drill holes that the strata on the west limb may be overturned but this has yet to be confirmed by drilling. The beds near the fold axis become strongly contorted and dips generally are steeper as the axis zone is approached. The fault that appears to have offset the Woodruff Formation and the Devils Gate Limestone west of the fold axis is plotted on Figure 4. The logic of the stratigraphy as presently known suggests that the Woodruff Formation has dropped down on the west side of the fault, but this still must be confirmed by drilling. The possibility of the lower Antelope Range Formation (Mar) both to the east and west of the trend at Area A-North indicates that the Woodruff Formation may be within reasonable drilling if the Webb Formation, which has not yet been identified near the vanadiferous trend, is missing. A pediment gravel blanket over this formation obscures all but a few outcrops near the fault as well as the Woodruff exposures.

West of the fault the Woodruff shale is likely faulted down leaving the overlying sandstone in contact with the Woodruff strata and the Devils Gate Limestone along the fault. The nature of the loose sand and gravel cover on the east flank is still uncertain; it appears to be pediment gravel overlying the Woodruff and older or younger rocks. The contacts are buried, and relationships, including more vanadiferous shale, cannot resolved without drilling. As the fold continues to plunge north, the Woodruff strata and the Gibellini facies, plunge under the overlying sandy sediments or alluvium, but should be accessible by exploration drilling for an undetermined distance north. If the fold limbs are tightly folded as is suspected from the dips in the trenches and in drill holes, the mineralized beds composing part of the fold limbs may be doubled over near one another to produce an increase of the local mineable thickness of the mineralized zone and more accessible mining tonnage within a single pit.

At Area A the upper 150 to 180 feet of the shale is oxidized by deep surface weathering from the effects of vadose water over the millennia. This rock is typically yellowish to orange and brown in color from iron oxide staining of the quartzose sediments and most or virtually all of the organic carbon and pyrite has been removed. The weathering process has been completely consistent on its effect of vanadium concentrations. In places within the oxidized zone vanadium appears to be partially stripped, and yet other sections of shale have retained all or nearly all of the original vanadium content. The oxidized zone has suffered a net loss in a number of trace and major element constituents due to leaching including aluminum, silver, calcium, iron, nickel, sulfur, zinc, cadmium, and vanadium, among others.

DEPOSIT TYPES

The Bisoni-Mckay vanadium deposit fits within a class of syngenetic, stratabound and strataform deposits occurring worldwide that are hosted by black, organic-rich shale that may contain a variety of anomalous quantities of metals and other compounds including vanadium, zinc, uranium, copper, barium, chromium, lead, molybdenum, silver, nickel, cadmium, selenium, sulfide, and phosphate. Quantities of any of these elements that reach economic value are relatively infrequent. When metamorphosed the organic carbon compounds in the shale are typically reduced to graphite, and the rock becomes slate, phyllite, or schist, but most of the overall rock-forming elements usually remain the same except for changes in their mineralogical affiliations. Sometimes graphite is an economic commodity.

Adsorption and precipitation under optimum environmental conditions must be important in removing these constituents from sea water; most of the anomalous organic shale deposits are marine. Some organic shale deposits contain multiple metals in elevated subeconomic to economic quantities, others such as the Bisoni McKay project seem to contain only one metal in potentially economic amounts, but the majority of organic shale deposits have no economically viable metal anomalies. The metals in organic shale appear to have had little direct association or genetic affiliation with volcanism or hydrothermal processes. Much of the organic content is described as kerogen, and some shale bodies have been examined for hydrocarbon resources. As far as known, anomalous organic or graphitic shale lithologies occur in every geologic era from the Precambrian to the Tertiary.

At Bisoni McKay the core holes provide evidence that the vanadiferous mineralization has stratabound and strataform characteristics. So far as determined, the primary stratigraphic control of mineralization in the primary (reduced) shale is the presence of organic material in the shale. Variation of vanadium grades due to primary deposition factors have not been studied.

MINERALIZATION

As discussed in the “Geological Setting” section, the vanadium mineralization occurs in a organic shale facies within the Devonian Woodruff Formation. Throughout the explored parts of Areas A and B and from Hecla drill logs in Area C, surface chemical weathering has oxidized and stripped much of the organic material from first 100 to 200 feet of the shale. The oxidized shale is termed the oxide zone at BMK, and the resulting sharp redox boundary or interface crosscuts the steeply dipping beds below which the reduced or primary organic shale occurs. The present depth of oxidation has likely been controlled by ancient water table stands.

The redox boundary appears to extend as a gently undulating plane from drill hole to drill hole (see sections on Figures 7 and 14 through 20 and hole locations on Figures 4 or 6). As the redos interface is approached intervals of the oxidized shale are sometimes only partially oxidized leaving some organic carbon residue; this is identified as the transition zone and is typically located directly over the redox boundary. The transition zone may be several tens of feet thick, and it was tested as a discrete ore type during Hazen's extraction experiments. Throughout the project area the mineralization in the oxidized zone will constitute a smaller fraction of the potential mineral resource available to be mined but typically contains economic grades overall.

The reduced zone is the primary unaltered carbonaceous vanadiferous shale with the organic material intact. The organic content is described as kerogen at the Bisoni and Gibellini properties, but the organics at BMK have not been identified by Hazen Research labs nor, as far as known, by an earlier, historic study. The carbonaceous shale hosts the bulk of the vanadium mineralization, and it is the principal mineralization target. It is dark gray to black and carries scattered, usually disseminated, fine grained pyrite.

Within a few feet of the surface, sporadic anomalous vanadium concentrations occur in a sequence of oxidized or partially oxidized, varicolored, silty shales often carrying thin veinlets of pinkish, white and gray quartz (macroscopic examination) and joint/fracture surfaces coated in limonite (goethite) and minor manganese oxide. Carbonate is typically a minor constituent in the shale except within the first few feet of the surface where caliche deposits have formed. The assay histograms from Trenches 24 and 25, located in the area of 2007 drilling (locations on Figures 2 and 4 and histograms on Figures 21 and 22, respectively) show the grades within the zone of surface weathering when compared to assays from the angle holes beneath them. See hole RC BMK 07-07 (Fig. 15) that projects under Trench 24 and the holes extending near Trench 25 that include RC BMK 07-02 and 03 (Fig. 14), 07-12 (Fig. 15) and Hecla hole BMK-18 (Figure 11). Significant grades of vanadium remain within the deep oxidized section, but some intervals have been partially leached resulting in lower overall averages than in the reduced zone. See Table 4 for a comparison of average grade composites of the oxidized and reduced zones in most of the borings in Area A-North. Note that the very low grades in the oxide zones of BMK 07-06 and BMK 07-07 are because the borings entered the 340-foot and 250-foot sections, respectively, of vanadiferous shale just above the bottom of the oxide zone. Thus most of the oxide zone penetrated by these holes likely contain the native background vanadium grades.

In a few borings there is evidence for sporadic vanadium enrichment from supergene processes directly below the redox interface. The best evidence for this occurs below the redox interface in core hole DDH BMK 05-01 where V_2O_5 grades increase up to 150% for 35 feet below the redox horizon (Table 5). The position of the V_2O_5 grade at the redox boundary makes supergene precipitation due to leaching and redistribution a highly suspect cause. At DDH BMK 05-02, up to a 100% increase in V_2O_5 occurs for 15 feet at the redox boundary. The RC holes do not reveal as clear a pattern, but in five RC holes a 50% to 100% grade bump occurs over intervals of five to ten feet. Thus far this spotty raise in grade has yet to be examined microscopically or chemically to conclusively prove a supergene origin. At this time the possible enrichments appear only to be sweet spots for future mining and not a reliable enrichment blanket to count on. Multielement analysis suggests that some trace elements such as zinc, copper, molybdenum and cadmium have also accumulated in thin, spotty, minor (uneconomic) elevated concentrations up to a few tens of feet below the redox horizon.

Table 4
Comparative Average % Grades between Oxide and Reduced Zones

Zone	BMK - Stina Hole Numbers					
	07-2	**07-3**	**07-4**	**07-5**	**07-6***	**07-7***
Oxide	0.30	0.42	0.31	0.36	0.07	0.08
Reduced	0.45	0.42	0.41	0.33	0.34	0.37
	07-8	**07-9**	**07-10**	**07-11**	**07-12**	**DDH 05-1**
Oxide	0.30	0.32	0.43	0.39	0.37	0.31
Reduced	0.50	0.41	0.57	0.39	0.23	0.81

Note: Oxide grades are represented by the portion of the oxide zone that are interpreted to have or once had high grade V_2O_5. A short interval of lower grades in the reduced zone indicates the boring has only penetrated a partial portion of the reduced section. * See explanation above.

Table 5
Intervals of Possible V_2O_5 Supergene Enrichment

Hole #, Grade		Hole #, Grade		Hole #, Grade		Hole #, Grade		Hole #, Grade		Hole #, Grade		Hole #, Grade	
DDH BMK 05-1	Redox state	DDH BMK 05-2	Redox state	RC BMK 07-3	Redox state	RC BMK 07-7	Redox state	RC BMK 07-8	Redox state	RC BMK 05-1	Redox state	RC BMK 05-2	Redox state
0.63	Oxide	0.26	Oxide	0.31	Oxide	0.30	Oxide	0.41	Oxide	0.75	Oxide	0.22	Oxide
0.75	Oxide	0.23	Oxide	0.31	Oxide	0.41	Oxide	0.32	Oxide	0.32	Oxide	0.26	Oxide
0.32	Oxide	1.29	Oxide	0.21	Oxide	0.59	Oxide	0.74	Red.	0.76	Oxide	0.23	Oxide
0.76	Oxide	0.82	Red.	0.61	Red.	0.54	Red.	0.47	Red.	1.63	Red.	1.29	Oxide
1.63	Red.	1.01	Red.	1.58	Red.	0.32	Red.	0.50	Red.	1.79	Red.	0.82	Red.
1.79	Red.	0.57	Red.	0.90	Red.	0.33	Red.			1.79	Red.	1.01	Red.
1.79	Red.	0.57	Red.	0.53	Red.					0.63	Red.	0.57	Red.
0.63	Red.	0.44	Red.	0.65	Red.					1.79	Red.	0.57	Red.
1.79	Red.			0.61	Red.					0.60	Red.		
0.60	Red.									1.50	Red.		
1.50	Red.									0.60	Red.		
0.60	Red.									0.57	Red.		
0.57	Red.												

Notes: Grades include 10 to 15 feet of background V_2O_5 values above and below the elevated "supergene" zone. "Red." = reduced zone/carbonaceous shale. Grade is in %. Enriched samples are underlined. Each sample represents a five-foot interval.

Vanadium minerals are seldom seen macroscopically; only the more colorful secondaries are occasionally observed. The modes of vanadium association in the three mineralized zones were determined by electron microprobe analyses of the polished sections by Hazen. The highly variable vanadium concentrations occurred in association with iron oxides, primarily goethite, and at lower levels with carbonaceous material in the transition and carbonaceous zones. There is a lack of any consistent V:Fe ratios reducing the possibilities of any discrete iron vanadate minerals. Consequently the association of vanadium and iron oxides suggests ultrafine mechanical mixtures. The iron oxide occurrences also carry anomalous zinc levels at uneconomic grades.

The author has observed several photo-images in the report of the carbonaceous zone showing rims or coatings composed of iron and vanadium on siltstone grains that run from 30% to over 70% V_2O_5. On images of the transition and oxide zones these coatings are largely absent. Possibly during the chemical weathering processes that produced the overall oxidized state and the redistribution of iron may have removed these iron coatings by leaching and, as well, stripped some of the vanadium and redistributed some of it resulting in locally enhanced grades. A consequence of vanadium leaching often results in spotty grade clustering of the remaining mineralization. Drill hole assays show some sections in the oxide zone where vanadium is nearly absent (stripped) and other sections where grades are elevated and are even higher than typical grades in the underlying primary carbonaceous zone.

Hazen's study reveals that organic material in the carbonaceous and transition zones occurs in local concentrations or is finely disseminated throughout the siltstone matrix. The organics of the transition zone ranged from 0.3%-0.8%, and in the carbonaceous zone ranged from 1.0%-1.38%. All the organics show low levels of sulfur. Even though the vanadium levels are much lower within carbonaceous material than with iron oxides (at microprobe analyses spot levels), the much more abundant presence of former suggests that the carbonaceous material holds the major concentration of vanadium in the latter zones. The greater spread of vanadium throughout the abundant organics will typically yield higher, more consistent grades than the oxide-associated vanadium in the oxide zone. The carbonaceous zone sample also reveals minute particles of elemental selenium and selenium-cadmium sulfide in association with organics.

Historic studies by Noranda (1975) provide evidence that the main metallic mineral in the shale at the nearby Bisoni and Gibellini prospects is manganese oxide in nodular form; the nodules also contain barium and vanadium. The vanadium content of the nodules is about 5%. Fine dusty disseminations and platy masses of hematite are ubiquitous in the shales. In contrast at BMK, the Hazen microprobe examination and multielement analyses indicate vanadium has no significant positive correlation of manganese with vanadium. In fact, typical manganese levels remain relatively low (less than a few tens or hundreds of parts per million (ppm)). Also, vanadium at 0.2% and 0.3% cutoff grades in reduced strata are more likely to be associated with inverse levels of manganese (at trace levels); manganese is typically an order of magnitude less when V_2O_5 is above 0.1% and rises when associated with V_2O_5 at background levels (below 1000 ppm).

Further review of the mineralization is found in the mineralogy subsection of the

"Mineral Processing and Metallurgical Testing" section and in the "Drilling" section.

EXPLORATION

This section includes the Phase I work discussed in the previous 2006 Technical Report and the new Phase II field work conducted in 2007.

Summary of Phase I Exploration – 2005

The areas where drilling was conducted from September to November 2005, specifically Areas A and Area B are shown on Figure 3. Geology and drill hole locations for Area A and Area B are shown in greater detail on Figures 4 and 5, respectively. Figure 4 also includes the 2007 RC borings BMK 07-01 to BMK 07-12. Exploration results are discussed in greater detail in the "Drilling" section. An exploration grid (Figure 6) was presurveyed over the north area to locate exploration holes, and the base lines and grid lines will be referred to below.

The Woodruff Formation and the accompanying carbonaceous sequence of shale and mudstone of the Gibellini facies hosts the vanadium concentrations. The formation and Gibellini facies have been broken and slivered into dipping elongate wedges of shale packages by graben-like fault offsets typically subparallel to the strike of the beds as shown by the geology on Figure 4 and Figure 5. The Woodruff fault blocks have kept their integrity for hundreds to thousands of feet along strike. Observations thus far show the potentially productive shale beds are mostly separated by uplifted limestone and barren fine clastic sediments. In Area A and Area B, two of the anomalous carbonaceous shale trends preserved as down-dropped fault blocks and separated from one another by older rocks were selected for exploration in further detail on 2005. Because of expediency, Stina has not methodically drilled Area C, the most southern region of the Stina's property holdings, but historic Hecla trenches and drill holes show the vanadiferous carbonaceous shale trend extending through this area.

The stratabound and strataform vanadium mineralization is hosted by the sequence of carbonaceous shale or oxidized former carbonaceous shale/mudstone of the Gibellini facies. The strike of the shale is north-northeast, and from 2006 mapping and drill hole correlations, most dips range from 60^o to 80^o. To maximize the intersection of the beds by drilling on Area A, all but one of the eleven of the 2005 RC holes were declined at 45^o and oriented west-northwest to cut bedding as close as possible to normal. The two groups of three and two core holes in Areas A and B, respectively, were also declined westward but at varying inclinations to provide a comprehensive cross section of the strata.

Trenches and Dump Samples

See the April 16, 2006 and 2005 Technical Reports for the selected trench work conducted by Stina in 2004-2005.

Core Drilling

Five (5) core holes were completed in September 2005, three (3) on grid line AN 0 near the intersection of W0+00 in Area A (Figure 6) and two (2) on a grid line on the south side of Area B (Figure 5). Core drilling totaled 1,732 feet. The Area A core holes were oriented at 278° west. The core hole total footage used in the Area A resource estimation is 1,155 feet.

Reverse Circulation Drilling

Eleven (11) RC holes were completed in November 2005. Six (6) of these holes were drilled in Area A ranging from 410 feet to 550 feet in length and totaling 2,750 feet, and five (5) in Area B from 80 feet to 300 feet in length and totaling 784 feet. The Area A RC angle holes were oriented at 278° west. Two RC holes were also completed in 2004 in Areas A and B, RC 04-2 and RC 04-1, respectively. The total footage of 2005 RC holes used for the Area A resource evaluation is 3,045 feet including vertical hole BMK 04-02 (Figures 4 and 6).

Summary of 2007 Phase II Exploration

In this initial stage of Phase II program, the exploration effort concentrated in Area A-North (Figures 2, 4, and 24). The drilling was conducted from mid-April to mid-May 2007. The detailed RC drilling in this relatively small block of mineralization of the vanadiferous shale belt provides evidence of grade continuity both laterally and down dip. This allows sufficient data for an estimate of indicated resources for this mineralized block of shale in compliance with Canadian National Instrument 43-101. The infill drilling was carried out along two parallel base lines, W0+00 and W1+00, 110 feet apart with most hole collars spaced approximately at 110 feet (± 32 m at grid and base line intersections. The drill holes of concern are plotted on the Figures 4 and 6 maps. The base line directions are at an azimuth of 018°, and the lines of holes cover approximately 700 feet of strike length of the vanadiferous trend and provide data up to 600 feet deep. Eight RC holes were declined at 45° at azimuth 288°; two holes were declined in the same direction at 65°, and the remaining two holes were vertical. The data from three 2005 core holes, DDH BMK 05-01, 02 and 03 located on base line W0+00 are also included in the resource assessment for Area A-North. Also included in the 2007 study are three RC holes completed in November 2005, BMK-05-04, BMK-05-05, and BMK-05-06. The 18 Stina borings drilled to assess of Area A will define an indicated resource for the drilled portion of Area A-North. Based on the good continuity of vanadium mineralization in Area A-North and a sufficient understanding of the structural setting, an inferred resource will also be calculated for the results of the 2005 RC holes BMK 05-01, BMK 05-02, and BMK 05-03, located in Area A-South (Figure 4). Hecla's 1970s holes are also plotted on the map. but they are historical and the data will only be used for geological support and not as resource data. See the "Drilling" section below for more discussion of Stina's drilling results.

The Phase II exploration program is not completed, and future plans for exploration and assessment are outlined in the "Recommendations" section.

Reverse Circulation Drilling

Twelve (12) 5.75-inch diameter RC holes were completed from April 12 to May 13, 2007. All the borings were located from the presurveyed grid in Area A-North (Figure 6), and holes ranged from 220 feet to 645 feet in length. Drill footage totaled 4,940 feet. The holes were drilled by O'Keefe Drilling Co. of Butte, Mt using a truck-mounted Rich 650 WS rig.

DRILLING

This section has two subsections separating the 2005 Phase I drilling program and the 2007 Phase II drilling program on the Bisoni McKay (BMK) property. The Phase I discussion is limited to work in Area A-North, which was the focus of the more detailed Phase II exploration. Much of the Phase I discussion will be essentially the same material as in the 2006 Technical Report, but it helps prepare the reader for the Phase II exploration conducted in the same area. No new exploration was conducted in the Southern Area B or in Area C since the preparation of the 2006 Technical Report. To date the Phase II field exploration is limited to the 2007 work in Area A covered in this report.

Trench sample results discussed in the April 16, 2006 Technical Report will not be repeated in this report. There has been no new developments on the trench program since the 2005 and 2006 Technical Reports.

Phase I - 2005 Drilling

Calculation Parameters

The drill hole samples provided data for resource calculations carried out in 2007. Calculations and parameters used to obtain V_2O_5 values from vanadium values and other derivatives are shown in Table 6 below.

Table 6
Vanadium Pentoxide (V_2O_5)
Calculation Parameters

V atomic weight	50.95	
O atomic weight	16.00	
V_2O_5 atomic weight		
V	2 x 50.95	101.90
O	5 x 16.00	80.00
Total		**181.90**
Weight V in V_2O_5	(101.90/181.90)	0.5602
Weight O in V_2O_5	(80.00/181.90)	0.4398
One part per million (ppm) to %	$1x10^{-6}x10^{2}$	0.0001%
Equivalency of V in V_2O_5	181.90/101.9	1.7851
Therefore 1 ppm of V in V_2O_5	1x1.7851	1.7851 ppm V_2O_5
Tons – U.S. short tons (st)	2000 pounds (lb)	
Pounds of V_2O_5 per st	2000x% V_2O_5 $x10^{-2}$	

Drill Log Preparation

The drill logs attached to the Phase I report were prepared from numbered sample tickets and hand written field logs. The rock material was described for five-foot intervals in each hole. As the rock types become more familiar, it became apparent that the best primary lithologic discriminators were color, grain size, hardness, and primary mineralogy with subordinate characteristics noted such as oxide minerals, veining, accessory minerals, fracturing, secondary mineral coatings on fractures and bedding planes, and nature of chip breakage. It appears that color changes result from a combination of oxidation degree and/or primary and secondary mineral characteristics. Colors were described when wet. Core angle measurements of bedding ("ca" on logs) were logged.

Area A – Drilling

Figure 6 shows the drilling grid for Area A with grid lines located at intervals of approximately 213 feet (65 meters). The grid lines are oriented on an azimuth of 288°.

2005 Core Drilling

Three (3) core holes were drilled on grid line AN 0.0. Hole Nos. DDH BMK05-0 1, DDH BMK05-02, and DDH BMK05-03 were drilled from a common collar on an azimuth of 278^o at declinations of 45^o, 57.5^o and 63^o, respectively (Figure 4 and 6). The fence of core holes with lithologies and grade composites is displayed on Figure 7.

The core holes intersected strata typically dipping eastward from 60^o to 90^o (from trench outcrop dips, core angles, and correlation of mineralization limits.) and striking north-northeast in nearby trenches. The oxide zone ranged from 150 to 180 feet deep (vertical depth) in the holes, but most vanadium grades remain economically attractive (Tables 3, 6A, Figure 7). Composite vanadium grades of 0.25% and greater begin near ground surface and continue to the total depths of DDH BMK 05-01 and 02 at 322 and 345 feet, respectively and to 428 feet in DDH BMK05-03. Holes DDH BMK 05-01 and 02 terminated while still in significant vanadium mineralization. DDH BMK 05-03 advanced 35 feet beyond 0.3% grades and 0.1%-0.2% grade mineralization and into trace or nearly barren carbonaceous mudstone/shale (<0.1%). Composite down-hole measurements and assay data are shown in Table 7A. These three holes give a good estimate of a minimum thickness for the vanadiferous sequence of beds. Mineralization exceeding 0.2% V_2O_5 begins at the top of the three borings and extends to 428 feet in DDH BMK 05-03. A line from there through the end of DDH BMK 05-01 approximates a 75^o dip. Barring any subsurface dip contortions, the unit thickness at the site is about 290 feet.

Key beds or lithologic other characteristics, with the exception of the redox interface, cannot be reliably correlated from one core hole to another. Distinctive vanadium grades such as very high grades in any particular stratigraphic section do not continue as recognizable values along beds extending from core hole to core hole. It appears that grades can vary considerably along any particular bedding package but still remain economic. This is typical of other hole correlations.

Most core angles from bedding measurements support apparent dips ranging from 50^o to 70^o with a minority at vertical to overturned attitudes. Some of the beds are locally strongly contorted. Granulated zones were commonly logged in the oxidized sections. In DDH BMK 05-03, the boring that advanced through deepest section of reduced beds, there are scattered broken zones from faulting and less granulation than in the oxidized zone.

Table 7A
Bisoni McKay Vanadium Property, Area A
2005 Core Holes – Grid line AN 0.00 – Composited Grades

From (ft)	To (ft)	Downhole Interval	Approx true width	V (ppm)	V2O5 (ppm)	V2O5 (%)	V2O5 lbs/st
Hole No. DDH BMK 05-01			**AN0+0 W0+00 TD-322'**				
0	75	75		1,395	2,491	0.25	4.95
75	205	130		1,693	3,023	0.3	6.05
205	323	118		4,623	7,610	0.76	15.22
0	323	323	260	2,563	4,575	0.46	9.15
Hole No. DDH BMK 05-02			**AN0+0 W0+00 TD-345'**				
23	119	96		1,630	2,909	0.29	5.82
119	213	94		1,635	2,919	0.29	5.84
213	345	132		4,944	8,825	0.88	17.65
23	345	322		2990	5337	0.53	10.67
Hole No. DDH BMK 05-03			**AN0+0 W0+00 TD-488'** 75° dip estimate				
13	83	70		1,501	2,680	0.27	5.36
83	227	144		2,771	4,952	0.5	9.9
227	428	201		2,761	4,929	0.49	9.86
83	428	345		2,766	4,938	0.49	9.88

2005 Reverse Circulation Drilling

Six (6) RC holes were drilled in Area A , one each on grid line AN 1.0S, AN 2.0S, AN 3.0S and AN 1.0N, AN 2.0N and AN 3.0N. The latter three holes are located in the focal area of Phase II exploration (Figure 24). All holes were declined at 45° on an azimuth of 278° with collar locations varied to intersect the stratigraphic section at close to 90° as possible. Collar locations are shown in plan on Figures 4 and 6 and cross sections of holes are shown on Figures 8 through 13. Historic Hecla holes are also plotted on the plan maps and in section for comparison when sufficiently near a 2005 hole. Tables 6B and 6C display the composite vanadium grades from the RC holes of Area A-North.

Hole Nos. RC BMK 05-01, 02 and 03 collared on grid lines AN 1.0S, AN 2.0S, and AN 3.0S, respectively, intersected a thick vanadiferous shale section that extended down-hole covering drill intervals from 315 to 370 feet thick (Figures 8, 9 and 10). The general grade tenor of the stratabound mineralization continues between holes. The trend of V_2O_5 mineralization is shown in plan on Figures 4 and 6. The trend extends through the drilled interval and also projected to the south, based on trench data and interpretation from Hecla holes BMK 14 and BMK 15.

With the exception of RC BMK 05-02, each hole passed through the vanadium mineralization and into barren carbonaceous shale that visually appears similar to the mineralized zone. The stratigraphy in RC BMK 05-03 correlated well with Hecla's BMK-16. Both terminated in limey shale that may be the beginning of a basal limey section that occurs near the Devils Gate Limestone contact. In each of the holes the grades in oxidized sections are variable indicating the effects of leaching. Significant grades in BMK-16 begins at 45 feet while significant grades in neighboring RC BMK 05-

03 begin at 185 feet (Figure 10). The vanadiferous zone narrows in Hecla's holes BMK-14 and 15, located south of the 2005 holes, perhaps because drill intercepts are too high or low in the mineralized facies or arguably due to local facies changes.

Hole Nos. RC BMK 05-04, 05-05, and 05-06 (Figures 11, 12, and 13), on grid lines AN 1.0N, AN 2.0N and AN3.0N were collared on the east flank of a low hill that is likely a manifestation of the anticline discussed in the "Geological Setting" section. The borings intersected the vanadiferous beds on the east flank of the anticline, The beds dip from 60^o to 90^o in nearby trenches. Significant grades extend down hole to 320, 330, and 370 feet in the three holes. Redox boundaries correlate well between nearby Hecla RC holes BMK-18 and BMK-19 with RC BMK 05-4 and 05-6, respectively (Figures 11 and 13). Significant vanadium occurs well up into the oxidized zones in all RC holes. BMK05-04 and BMK-18 may have advanced into the west flank of the anticline. See Table 7C.

Table 7B
Bisoni McKay Vanadium Property,
Area A-South
2005 RC Holes – Composited Grades

From (feet)	To (feet)	Downhole Interval (feet)	Approx. True Width (feet)	V (ppm)	V_2O_5 (ppm)	V_2O_5	V_2O_5
Hole No. RC BMK 05-01 – Grid line AN 1.0S TD - 400'							
0	10	10	260	297	530	0.05	1.06
10	315	305		2,531	4,518	0.45	9.04
315	550	235		278	497	0.05	0.99
Hole No. RC BMK 05-02 – Grid line AN 2.0S TD - 400'							
0	230	230		607	1,084	0.11	2.17
230	350	120		3,059	5,460	0.55	10.92
350	400	50		1,705	3,049	0.30	6.09
0	400	400		1,480	2,642	0.26	5.28
Hole No. RC BMK 05-03 – Grid line AN 3.0S TD – 410' 80^o dip estimate							
0	185	185		513	915	0.09	1.83
185	360	175		1,763	3,147	0.31	6.29
360	410	50		161	288	0.03	0.68

Table 7C
Bisoni McKay Vanadium Property,
Area A-North
2005 RC Holes – Composited Grades

From (feet)	To (feet)	Downhole Interval (feet)	Approx. True Width (feet)	V (ppm)	V_2O_5 (ppm)	V_2O_5 (%)	V_2O_5 (lb/st)
Hole No. RC BMK 05-04 – Grid line AN 1.0N TD – 440' 85° dip estimate.							
0	55	55		394	696	0.07	1.39
55	205	150	230'	2,871	5,124	0.51	10.25
205	330	125		2,122	3,787	0.38	7.57
330	440	110		165	295	0.03	0.39
Hole No. RC BMK 05-05 – Grid line AN 2.0N TD – 500'							
0	80	80		279	497	0.05	0.99
80	255	175		2,529	4,514	0.45	9.03
255	320	65		2,016	3,599	0.36	7.20
320	550	180		161	287	0.03	0.57
Hole No. RC BMK 05-06 – Grid line AN 3.0N TD - 450'							
0	110	110		174	311	0.03	0.62
110	370	260		2,307	4,119	0.41	8.24
370	450	80		296	528	0.05	1.06
Hole No. RC BMK 04-02				**TD-295'**			
0	295'			All grades below 0.1%			

General Observations from 2005 Drilling

Grade changes do not necessarily coincide with the relatively minor lithological breaks identified in logged drill core and chips such as the minor grain size differences between siltstone, mudstone and shale. Also, elevated vanadium grades sometimes span the redox boundary and may occur in oxidized as well as reduced (carbonaceous) lithologies indicating that vanadium has not necessarily been leached from the parts of the oxidation zone or possibly are remnants of previous enrichment the survived the downward movement of the redox boundary. In most holes, however, the vanadium appears to have been partially leached from portions of the oxidized rock as is obvious from the usually sharp increase of vanadium grade below the redox boundary. Evidence for leaching is seen in the mixed reduced and oxidized intervals in RC BMK 05-02 where higher grades remain in islands of reduced shale, and from the contrasting grades in the oxidized zones of nearby holes, RC BMK 05-03 and Hecla's BMK-16 (Figure 10). The deep redox boundary could represent an ancient water table stand, and, given past wetter climatic conditions, much of the oxidation probably occurred in the Pleistocene or early Holocene. Vanadium leaching may have been partially controlled by higher levels of pyrite found in some shale beds that would have created acidic vadose water and groundwater during the oxidation process. More recent weathering and soil forming processes may have leached much of the vanadium from the first five to ten feet below ground surface at some hole and trench sites. Caliche deposits are common near the ground surface.

Comparisons of field log observations and analytical results indicate that the vanadium grades in the carbonaceous shale do not appear to correlate well with observed pyrite content, quartz vein density, the character of limonite, or the abundance and character of other secondary minerals in the reduced zone. A more detailed examination at microscopic levels, however, may not entirely support these observations.

The ALS Chemex multi-element analyses are useful in correlating contents of major and minor elements with vanadium variations. In particular, calcium (Ca), and manganese (Mn) concentrations generally decrease in sections where vanadium grades increase, and the amount of zinc (Zn) and phosphorus (P) tend to follow vanadium abundances. This is also supported by the 2007 drilling results. In the oxidized zone sulfur and iron as well as other elements (see "Local Geology" section) have been leached. Zinc and cadmium concentrations appear to be slightly enriched for a few tens of feet below the redox boundary. Evidence of supergene vanadium concentrations directly below the redox interface is discussed in the "Mineralization" section.

Phase II - 2007 Drilling

As discussed in the "Exploration" section, the initial Phase II drilling program of twelve RC holes was conducted solely in the Area A-North on two parallel base lines (Figures 6 and 24). The hole collars are set approximately 110 feet (± 32 m) apart along base lines W0+00 and W1+00 and the grid lines that cross normal to the base lines (Figure 6). Pairs of holes were located on grid lines AN 1.0N, AN 1.5N, AN 2.0N, AN 2.5N, AN 3.0N, and AN 3.5N. The pairs on three of these lines are completed with three 2005 RC holes. Three 2007 RC holes are located on AN 0.5N. The 2005 core holes were drilled at a common collar on AN 0+0. The two base line directions are azimuth 018^{o} and are subparallel to the strike of the vanadiferous trend. The distance between the 2005 core holes in the south and BMK 07-04 in the north is approximately 600 feet. Most borings provide data ranging down to 300 to 400 vertical feet with two holes extending over 600 feet deep. Eight holes were declined at 45^{o} at azimuths of 288^{o} and include BMK 07-01, 02, 03, 04, 08, 09, 10, and 12. Two holes, BMK 07-05 and 11, were set at 65^{o} at the same azimuth as above. Holes BMK 07-06 and 07 were vertical and were the deepest at 625 feet and 645 feet. The 45^{o} holes are declined to intercept the steep eastward dip of the Woodruff Formation beds at the largest angle possible for the rig setup. Typical dips on the east limb range from 60^{o} to 90^{o} east. The two rows of borings would allow each line of holes to intersect the stratabound, tabular, east-dipping mineralization at two different levels. Each hole has intercepted the primary (reduced) and oxidized, near-surface V_2O_5 mineralization at different depths and lateral extension along strike of the same strata, and these staggered locations are needed to better determine lateral grade, dips, and geologic continuity for resource estimation.

Section drawings of the 2007 holes are plotted on Figures 7 and 14 through 20. The sections include one to three holes aligned along the grid lines (Figure 6). The three 2005 borings drilled in this area are included on the sections. As well, the three 2005 core holes, DDH BMK 05-01, 02 and 03 (Figure 7), will be included in the assessment of Area A-North. Each section diagram includes the general rock type log and oxidation state, composite grades of selected intervals and footage markers, and some extrapolated geologic and mineralization information between holes and the surface. Figures 4 and 6 are plan maps showing hole locations and their horizontal projections. Similar to the data display for the 2005 drilling above, Tables 9A, 9B, and 9C show grades of composite samples of selected intervals of the chip sample assays collected every five feet. The V_2O_5 assays are those plotted on the hole section diagrams.

Discussion of Drill Results

Each RC boring advanced through an interval of oxidized shale that ranged from 150 to 200 vertical feet deep with most oxidation-reduction (redox) interfaces occurring at vertical depths of about 160 to 180 feet. As usual, because of partial leaching, the V_2O_5 concentrations tend to vary more in the oxidized zone as compared with grades in the reduced shale, but most concentrations still remain in potential ore or subore grade categories of greater than 0.2%. Most intervals where vanadium was presumably present in the section prior to weathering, attractive amounts of vanadium remain in the oxidized zone in RC holes BMK 07-01, 02, 03, 04, 05, 08, 09, 10, and 12, but many V_2O_5 grades average less than grades in the reduced shale (see Table 4 and Figures 7, 14 to 20). Sometimes leaching makes it uncertain where to mark the upper limits of the original vanadium mineralization.

In holes that have penetrated the upper and lower limits of the main vanadiferous zone, there are intervals consisting of a number of contiguous samples containing 0.1% grades along the perimeters of the vanadiferous unit. Regarding the upper vanadiferous contact, in some cases in these lower grades may be the residual V_2O_5 left after leaching. Note that these beds were not included in the calculations for Tables 7 and 8 since, if necessary, they would be available for stripping or avoiding to mine the vanadiferous sequence. At the redox boundary an abrupt grade break of several hundred parts per million (ppm) commonly occurs immediately below the redox boundary.

Most borings extend through the mineralized intervals of the carboniferous shale beds that range from 0.2% to greater than 1.5% V_2O_5, and then advance through thin zone of marginally mineralized beds, 0.1%-0.2% V_2O_5, into uneconomic shale with vanadium values dropping, usually abruptly, to hundreds of ppm (<0.1%). Significant vanadium grades can vary between roughly correlated beds in adjacent holes but do not typically fall below the range of grades of economic interest. Grade continuity of the mineralized carboniferous shale between boring pairs and between holes along the base lines can be reasonably verified by the grades averages shown on the boring section diagrams (Figures 10 to 20) and on Tables 3 and 8. There are no abrupt, severe grade decreases or increases laterally between holes, especially in the reduced mineralization, such as would likely occur between two or more ore veins or between vein dialations.

Within the vanadiferous shale section of economic interest in each hole, intervals below 0.2% are relatively infrequent in most holes. There are scattered, discontinuous sequences of beds with grades ranging from 0.1% to 0.2% V_2O_5 that range from 5 to 25 feet thick, but most thicknesses are 15 feet or less and would have to be removed with the ore. A small minority of the grades are less than 0.1%. Table 8 shows the percentages of beds less than 0.2% V_2O_5 in the oxide and reduced sections of each 2007 hole and the three 2005 core holes. The percentages do not include the apron of 0.1% grades that often lead into and follow the mineralized strat sections. A few of 2005 and 2007 borings have advanced into background shale (hundreds of ppm V) below the principal vanadiferous zone and have intersected thin, isolated beds of higher grade mineralization (.0.3%) or marginally mineralized shale (0.2%-0.3%) that have no significant thickness nor economic value at this time.

The narrow transition or perimeter zone between significant mineralization (>0.2% V_2O_5) and anomalous background rock (<0.1%) at the bottom of the vanadiferous unit is convenient for mine economics and ore control.

Table 8
Percentage of Beds less than 0.2% Nested within 0.3% Cutoff Intervals

	%<0.2/drilled interval		**%<0.2/drilled interval**		**%<0.2/drilled interval**		**%<0.2/drilled interval**
07-01		**07-02**		**07-03**		**07-04**	
oxide	0%/140 ft	oxide	4.5%/220 ft	oxide	4%/250 ft	oxide	12%/120 ft
reduced	na*	reduced	0%/35 ft	reduced	5%/200 ft	reduced	0.6%/150 ft
07-05		**07-06**		**07-07**		**07-08**	
oxide	0.6%/165 ft	oxide	na**	oxide	0%/20 ft	oxide	0%/140 ft
reduced	3%/65 ft	reduced	23%/340 ft	reduced	13%/230 ft	reduced	0%/120 ft
07-09		**07-10**		**07-11**		**07-12**	
oxide	0%/135 ft	oxide	14%/220 ft	oxide	1.4%/70 ft	oxide	7%/200 ft
reduced	0%/125 ft	reduced	0%/60 ft	reduced	13%/300 ft	reduced	na
DDH 05-01		**DDH 05-02**		**DDH 05-03**			
oxide	7%/210 ft	oxide	30%/230 ft	oxide	3%/453 ft		
reduced	0%/10 ft	reduced	0%/95 ft	reduced	na*		

na* - no 0.3% cutoff reduced beds more than 10 feet thick in the hole
na**- less than 0.2% oxide beds

Good grade continuity can also be seen on the Phase I sections in Area A-South between RC BMK 05-01, 02 and 03 and core holes DDH RMK 05-01, 02, and 03 (Table 9). The section drawing for RC BMK 05-03 also includes the Hecla boring BMK-16 (Figure 10).

The compatible grades and geological controls the between the latter holes in Area A-South and the tighter hole intervals in Area A-North suggest that a valid inferred resource can be calculated for the south half using the wider spaced borings. See also Table 9 for grades in holes in Area A-South. Figures 8, 9, and 10 are section drawings for RC BMK 05-01, 02, and 03.

Table 9
Average V_2O_5 Grade above 0.2% in Reduced Beds Intersected by 2007 RC Borings and 2005 RC & DDH Borings

Hole #	Drill Interval (ft)	Av. Grade %	Hole #	Drill Interval (ft)	Av. Grade %
Area A-North - RC			BMK05-04	70	0.46
BMK07-01	none		BMK05-05	100	0.42
BMK07-02	35	0.45	BMK05-06	125	0.42
BMK07-03	200	0.42	Area A-South - RC		
BMK07-04	150	0.41	BMK05-01	135	0.50
BMK07-05	40	0.29	BMK05-02	165	0.48
BMK07-06	355	0.34	BMK05-03	145	0.34
BMK07-07	230	0.37	DDH Holes - Area A-North		
BMK07-08	140	0.49	BMK05-01	93	0.85
BMK07-09	135	0.47	BMK05-02	128	0.92
BMK07-10	60	0.57	BMK05-03	275	0.48
BMK07-11	300	0.39			
BMK07-12	10	0.27			

Establishing the true width or thickness of the vanadiferous package of beds depends on determining a best dip estimate based on current observations of the bedding intersected by the each of the borings and from the few surface attitudes measured (see Tables 9A, 9B, 9C, 6A and 6C for width estimates for each hole). From extrapolations using the bottom and top limits of the vanadiferous beds in DDH BMK 05-01, 02 and 03 and RC 04-02, the general dip is estimated at 70^o- 75^o eastward, and the minimum thickness of the vanadiferous unit is about 295 feet (Figure 7). Many core angles of bedding support the estimated dips, but the variations of the core angles in any one hole indicate wavey or contorted bedding (as is observed in trench exposures). Using the sequence of the three aligned RC holes directly north of the core holes, RC BMK-07-01, 02 and 03, and correlating the bottoms of the mineralization suggest that the dips here may be near vertical or even slightly overturned, especially at the west end of the borings that could be effected by flexure along the axis of an anticline (Figure 14). A minimum thickness of 300 feet is measured from BMK 07-03, which has intersected mineralization throughout its 450-foot length. Some of the pairs of other holes drilled on base lines W0+00 and W1+00 present complications for assay correlations. Extrapolations of the lower and upper V_2O_5 limits of pairs of holes BMK 07-05 and 11, BMK 07-08 and 07, and BMK 07-04 and 06 (Figures 16, 18, 20) suggest a dip angle decrease to the north. The remaining pairs are between 2007 and 2005 holes or between Stina holes and Hecla holes and are not drilled on the same vertical plane, thus are difficult to match V_2O_5 limits for dip estimations. Dips observed in the trenches (Trench 24 and 25) traversing the oxidized vanadiferous unit reveal that bedding angles exhibit local contortions and are somewhat inconsistent (see Figure 4 for bedding attitudes).

As mentioned in the “Local Geology” subsection, the bedding dips in trench exposures near the fold axis become steeper and approach the vertical and possibly overturned attitudes. Correlating the bottom of the mineralization in several of the pairs of 2007 borings usually show very steep dips assuming that the bottom of the mineralization is strataform from hole to hole.

The nature of the fold hinge and the position and attitude of the fault along the western side of the mineralized belt in Area A-North block is still uncertain. The resolution of the thickness and disposition of the mineralized beds in this area remains uncertain until more drilling is carried out across these beds and through the projected fault zone. The doubling up of the mineralization thickness due to overturning is always an attractive possibility.

Table 8 shows the vanadium assay averages consisting of significant intervals of 65 drill-feet or more within the reduced lithology zone of each boring. Also included in Table 8 are the grade averages from the reduced beds in the three 2005 borings RC BMK 05-01, 02 and 03 in Area A-South. Given that part of the grade variations is due to the varying intersection lengths of the reduced zone in each hole, the V_2O_5 grades do reflect a relatively even tenor along strike and down dip of the shale across the target area. In each hole the significant V_2O_5 grades are measured from the bottom of the oxide zone to the terminus of the beds carrying grades of 0.2% V_2O_5 or better. At this point the grades typically drop off within a few feet to less than 0.1% V_2O_5. The different lengths of vanadiferous reduced beds are due to holes advancing through a thicker section of oxide rock and, consequently, intersecting a smaller an interval of vanadiferous carbonaceous shale.

Table 10A
Bisoni McKay Vanadium Property – North Half Area A,
2007 RC Holes – Composited Grades

From (feet)	To (feet)	Downhole Interval (feet)	Min. True Width (feet)	V (ppm)	V_2O_5 (ppm)	V_2O_5 (%)	V_2O_5 (lb/st)
Hole No. RC BMK Grid Line: AN 1+00, W 2+00 TD-220' 85^o-90^o dip est.							
0	40	40		180	320	0.032	0.64
40	135	95		202	360	0.036	0.7
135	220	85				<0.005	
Hole No. RC BMK Grid Line: AN 1+00 W1+00 TD-320' 90^o dip est.							
0	45	45	130'	1517	2700	0.27	5.4
45	245	200		1854	3300	0.33	6.6
245	320	75		539	960	0.096	1.9
Hole No. RC BMK Grid Line: AN 1+00 W0+00 TD-450' 90^o dip est.							
0	55	100		1517	2700	0.27	5.4
55	295	240		2865	5100	0.51	10.2
295	350	55	300'	2247	4000	0.40	8.0
350	450	100		1685	3000	0.30	6.0
Hole No. RC BMK Grid Line: AN 3.5 W1+00 TD-400' 75^o dip est.??							
0	105	105				<0.06	
105	135	30		1348	2400	0.24	4.8
135	355	220	195'	2247	4000	0.40	8.0
355	390	35		1461	2600	0.26	5.2
390	400	10			700	0.07	
Hole No. RC BMK Grid Line: AN 1.5 W 1+00 320' 90^o dip est.							
0	45	45			160	0.16	
45	100	55		2191	3900	0.39	7.8
100	220	120	100'	2640	4700	0.47	9.4
220	270	50		1517	2700	0.27	5.4
270	320	50				<0.07	
Hole No. RC BMK 07-06 Grid Line: AN 3.5 W0+00 TD-625' 35^o dip est??							
0	180	180			600	0.06	
180	220	40		1461	2600	0.26	8.2
220	260	40		1629	2900	0.29	5.8
260	340	80		2359	4200	0.42	8.4
340	395	55		1292	2300	0.23	4.6
395	460	65		1910	3400	0.34	6.8
460	525	65		1292	2300	0.23	4.6
525	625	100			600	<0.06	

Note: Projected dips are only estimated from the few surface dips measured and from correlating grade intervals usually at the bottom of the mineralization. Bed surface exposures in trenches appear to be somewhat crenulated or contorted making subsurface dip changes difficult to predict. Dips may also change from one end of the trench to the other and angles often appear to decrease to the east. Projecting dipping beds at the west end of the boring projects are complicated by folding, possible overturning and a fault offset.

Table 10B
Bisoni McKay Vanadium Property – North Half Area A
2007 RC Holes – Composited Grades

From (feet)	To (feet)	Downhole Interval (feet)	Est. True Width (feet)	V (ppm)	V_2O_5 (ppm)	V_2O_5 (%)	V_2O_5 (lb/st)
Hole No. RC BMK 07-07 Coord: AN 2.5 W 0+00 TD-645'							
0	135	135			400	0.04	
135	145	10		1461	2600	0.26	5.2
145	240	95		1854	3300	0.33	6.6
240	280	40		2528	4500	0.45	9.0
280	325	45		1798	3200	0.32	6.4
325	380	55		2641	4700	0.47	9.4
380	645	265			500	0.05	
Hole No. RC BMK 07-08 Coord: AN 2.5 W 1+00 TD-400' 90^o dip estimate							
0	45	45			400	0.04	
45	125	80	220'	1236	2200	0.22	4.4
125	175	50		3202	5700	0.57	11.4
175	245	70		2079	3700	0.37	7.4
245	355	110		2865	5100	0.51	10.2
355	400	40		1123	2000	0.20	4.0
Hole No. RC BMK 07-09 Coord: AN 3.0 W 1+00 TD-480' 90^o dip estimate							
0	75	75				<0.04	
75	115	40	225'	1011	1800	0.18	3.6
115	175	60		2079	3700	0.37	7.4
175	235	60		2191	3900	0.39	7.8
235	330	95		2528	4500	0.45	9.0
330	370	40		1517	2700	0.27	5.4
370	480	110				<0.05	

Table 10C
Bisoni McKay Vanadium Property – North Half Area A,
2007 RC Holes – Composited Grades

From (feet)	To (feet)	Downhole Interval (feet)	Est. True Width (feet)	V (ppm)	V_2O_5 (ppm)	V_2O_5 (%)	V_2O_5 (lb/st)
Hole No. RC BMK 07-10 Coord: AN 2.0 W 1+00 TD-300'							
0	25	25			700	0.07	
25	110	85		1236	2200	0.22	4.4
110	200	90		2865	5100	0.51	10.2
200	290	90		3652	6500	0.65	13
290	300	10		2359	4200	0.42	8.4
Hole No. RC BMK 07-11 Coord: AN 1.5 W 0+00 TD-480' 90° dip estimate							
0	105	105				<0.05	
105	130	25	>180'	1517	2700	0.27	5.4
130	170	40		2360	4200	0.42	8.4
170	240	70		3595	6400	0.64	12.8
240	290	50		2584	4600	0.46	9.2
290	350	60		1966	3500	0.35	7.0
350	390	40		674	1200	0.12	2.4
390	480	90		1742	3100	0.31	6.2
Hole No. RC BMK 07-12 Coord: AN 1.0 W 1+00 TD-300' 90° dip estimate							
0	70	70	180'	2202	3600	0.36	7.2
70	100	30		2921	5200	0.52	10.4
100	175	75		1461	2600	0.26	5.2
175	210	35		2247	4000	0.40	8.0
210	225	15		1292	2300	0.23	4.6
225	300	75				0.05	

General Observations from 2007 Drilling

The detailed drilling at 110-foot centers on Area A-North has encountered grade continuity exceeding grades of 0.35% V_2O_5 between holes. The boring results demonstrate the continuity of vanadium distribution within a belt of fairly homogenous carbonaceous shale. It is reasonable to assume that the extension of these conditions extend to Area A-South through the intersections of RC holes BMK 05-01, BMK 05-02, and BMK 05-03. The steepening dips that are encountered on the west end of many of the 2007 borings are likely the effect of the fold axis and faulting.

There appears to be a grade contrast between the 2005 core holes DDH BMK 05-01, 02,and 03 and neighboring RC holes BMK-07-01, 02, and 03 and BMK 05-01, as well as other RC holes to the north and south. The elevated grades in the core holes compared with adjacent RC holes can be quickly discerned in Table 9and by average grade comparisons between the DDH borings in Table 7A and RC holes in Tables 7B, 7C, and 10A. The reason for the grade contrasts are only conjectural at this time. Thus far there does not appear to be any differing, unique, noticeable geological phenomena between the borings. However, the average grades also do increase slightly in the 2005 holes (BMK 05-01 and 02) immediately south of the core holes suggesting possible richer mineralized facies that was fortuitously intersected by the core holes (Table 9). The problem will be investigated further with the next period of field work which will include additional core holes. The possibility of systematic under-represented grades in RC holes may increase the tenor of mineralization throughout Area A.

SAMPLING METHOD AND APPROACH

Drilling

The 2004-2005 core holes were drilled using an Atlas Copco Diamec U8 APC rig owned and operated by Kettle Drilling, Inc. of Coeur d'Alene, Idaho. With few exceptions, samples were selected at five-foot intervals, and core was cut into halves with a diamond-studded saw where necessary. The remaining half of the core is stored in core trays in a secure facility in Eureka.

The eleven Phase I 2005 RC drill holes were completed using an Ingersoll Rand Reverse Circulation (RC) drilling rig (buggy rig) with a four-inch diameter, carbide studded hammer bit, owned and operated by O'Keefe Drilling of Butte, Montana. The twelve Phase II RC drill holes completed in 2007 were drilled by O'Keefe using a truck-mounted Rich 650 WS buggy rig with a 5.75-inch bit. For each RC hole separate samples were collected at five-foot intervals. The recovered samples were each passed through a cyclone splitter set to reject about a half to two thirds of the sample and to retain the remainder. Duplicate samples of each five-foot interval were collected for metallurgical testing labeled with sample number and a suffix "MET".

After logging, each sample was bagged in a 10-inch x 17-inch polyester bag. Each bag was sealed with an eight-inch plastic locking tie to prevent access to the sample prior to sample preparation and chemical analysis. The samples were transported by truck either to Reno or Elko, Nevada, and were delivered to ALS Chemex laboratories under the direct supervision of the site geologist or a field assistant (Geologists Edwin Ullmer in 2005 and David Lorge in 2007). MET samples, sample rejects and pulp rejects are stored in Eureka in the same locked facility as the core trays.

SAMPLE PREPARATION, ANALYSES AND SECURITY

Samples from trenches, core and RC drilling were prepared and split in the laboratories of ALS Chemex in Reno, Elko and Winnemucca, Nevada. Assay pulps were air-freighted to ALS Chemex in Vancouver, British Columbia, Canada, for analysis. ALS Chemex laboratories are certified in North America, Peru, Chile and Argentina.

All samples were dried in ovens, weighed and then crushed to 70% nominal minus six millimeters (–6mm) using jaw and/or roll crushers. A second fine crushing pass gave a product of 70% minus two millimeters (-2mm) or better. The sample was then split in a riffle splitter to obtain a 250 gram (gm) sample. The 250 gm split sample was pulverized to a powder with 85% passing 75 micron, or better, using a "flying disk", or ring and puck style, grinding mills. An air-freight courier transported the sample splits to ALS

Chemex's laboratories in Canada.

The samples were analyzed by ALS Chemex's ME-ICP61 method, which is a four acid "near total" digestion that quantitatively dissolves nearly all elements for the majority of geological materials. Twenty seven (27) elements were analyzed following HF- HNO_3 – $HClO_4$ acid digestion and an HCl leach. The samples were analyzed using Induction Coupled Plasma Atomic Emission Spectra (ICPAES). The following elements, with their analytical ranges, provided by this method are shown in Table 11.

Table 11
ALS Chemex
Analytical Ranges, ME-ICP61

Element	Symbol	From (ppm)/%	To (ppm)/%	Element	Symbol	From (ppm)/%	To (ppm)/%
Silver	Ag	0.5	100	Manganese	Mn	5	10,000
Aluminum	Al	100	25%	Molybdenum	Mo	1	10,000
Arsenic	As	5	10,000	Sodium	Na	100	10%
Barium	Ba	10	10,000	Nickel	Ni	1	10,000
Beryllium	Be	0.5	1,000	Phosphorus	P	10	10,000
Bismuth	Bi	2	10,000	Lead	Pb	2	10,000
Calcium	Ca	100	25%	Sulfur	S	100	10%
Cadmium	Cd	0.5	500	Antimony	Sb	5	10,000
Cobalt	Co	1	10,000	Strontium	Sr	1	10,000
Chromium	Cr	1	10,000	Titanium	Yi	100	10%
Copper	Cu	1	10,000	Vanadium	V	1	10,000
Iron	Fe	100	25%	Wolfram	W	10	10,000
Potassium	K	100	10%	Zinc	Zn	2	10,000
Magnesium	Mg	100	15%				

DATA VERIFICATION

All samples from the holes drilled in 2005 were re-analyzed for vanadium using ALS Chemex's V-AA62 method (MS 81). This method uses the digestion liquid as described above for the ME-ICP61 method and analyses for vanadium were made by Atomic Absorption Spectrometry (AAS). This method yields vanadium results in the range 0.01% to 30 % vanadium.

A comparison of average V_2O_5 results, using ME-ICP61 and MS 81 analytical methods, on 120 drill hole samples from the initial 2004 Phase 1 RC holes BMK 04-01 and 02 is shown in Table 12.

Table 12 Bisoni McKay Vanadium Deposit Comparison of 2005 Assay Results – ICP61 versus MS81 methods			
Analytical Method	**120 Samples V_2O_5 (ppm)**	**Samples V_2O_5 < 1000 ppm**	**Samples V_2O_5 > 1000 ppm**
ICP 61	0.090	0.037 (92 samples)	0.264 (28 samples)
MS 81	0.089	0.038 (98 samples)	0.289 (24 samples)

The averages of all 120 samples analyzed by the two methods are very similar. Samples that analyzed less than 1000 ppm V_2O_5 by the two methods show close correlations. There is, however, a greater spread between the two methods for the samples that analyzed greater than 1000 ppm V_2O_5 with the MS 81 results being 9% higher than those for the ICP61 method. The MS 81 method was not used for the analysis of V_2O_5 in the trench samples and all results reported in the April 16, 2006 Technical Report appendices and in the text for these samples are based on the ICP61 method. Based on the data tabulated above it seems likely that the trench V_2O_5 analyses understate the grade.

The Phase II 2007 drill samples were analyzed by ALS Chemex using solely the ICP61 method. The correspondence between methods ICP61 and MS 81 in 2005 was satisfactory to trust the validity of ICP61 which produced the most conservative results. Eight paired duplicate samples with V_2O_5 contents exceeding the mean were rerun in the 2007 program, The sample results are presented in Table 13; they confirm an acceptable lab technique.

Table 13 2007 Duplicate Sample Assay Check			
RC Boring	Sample Interval	Original V Assay %	Rerun V%
BMK 07-03	255-260	0.89	0.91
BMK 07-03	260-265	0.50	0.52
BMK 07-05	185-190	0.66	0.67
BMK 07-05	190-195	0.53	0.54
BMK 07-10	205-210	0.56	0.57
BMK 07-10	210-215	0.53	0.55
BMK 07-11	195-200	0.48	0.49
BMK 07-11	200-205	0.48	0.50

ADJACENT PROPERTIES

Detailed information exists for the Gibellini and Bisoni Properties and field relationships suggest that the Bisoni McKay Property is geologically similar, but the mineralogical associations with vanadium and other metals of interest appear to be different. Knowledge of the Gibellini and Bisoni properties, which are a few miles north of the Bisoni McKay (BMK) Property, is important to the understanding of the Bisoni McKay Property. These property locations are on Figure 1.

The BMK deposit, the Gibellini and Bisoni deposits are within a Devonian kerogen-rich sequence of black shale that has been come to be identified as the Gibellini facies of the Woodruff Formation. As at BMK, the sequence at the latter two prospects is variably oxidized to approximately 150 feet below the surface (JAA, 1988). An oxidized and partially oxidized transition zone overlies unoxidized, hard, black shales. The transition zone ranges from light to very dark gray shale and separates the buff colored, oxidized shale from the mineralized black shale. The main vanadiferous zone with values up to 4,000 ppm of V_2O_5, occurs as a primary stratabound deposit immediately below the transition zone (Morgan, 1989). However, in contrast to BMK, the Gibellini and Bisoni deposits also include anomalously high concentrations of molybdenum, selenium, and zinc, manganese as well as other metals.

Gibellini

Here the potential ore minerals are psilomilane and pyrolusite with appreciable quantities of zinc and nickel contained in manganese oxides. Lechler and Hsu (?1 990) report sphalerite, vanadium organic complexes, nickel organic complexes and molybdenite. Pyrite, marcasite and opal have also been recognized.

Lechler and Hsu also indicate that platinum group elements (“PGE”) are present as unidentified phases. These minerals contain platinum (Pt) up to 626 parts per billion (ppb) and with a Pt to palladium (Pd) ratio of 10:1. The University of Nevada (Open File Report No 9 8-4) reports anomalous platinum associated with hydrothermal manganese mineralization at the Gibellini Mine where there appears to be a hydrothermal component of the mineralization due to a felsic intrusion. Platinum mineralization is reported to be hosted by the Devils Gate Formation. The Woodruff Formation contains syngenetic concentrations of metals exceeding 0.4% V_2O_5, 0.12% Ni, and 1.8% Zn.

In the oxidized zones complex secondary vanadium and phosphate minerals have been identified in fractures. These minerals are listed in Table 14 below (Hausen, 1962; Roberts et al, 1967).

Table 14
Secondary Vanadium & Phosphate Minerals at Gibellini

Schoderite, metaschroderite	-	$2Al_2O_3: V_2O_5 . P_2O_5 . 1\ 6H_2O$
Vashegyite	-	$(Al_4(PO_4)_3 . (OH)_3 . n(H_2O))$
Metahewettite	-	$CaV_6O_{16}\ 3H_2O$
Wavellite	-	$2AlPO_4 . Al . (F . OH)_3\ 5H_2O$
Bokite	-	$Kal_3Fe_6V_{26}O_{76} . 3OH_2O$

In the oxidized environment vanadium occurs as red botryoidal masses and as red, orange, yellow and greenish stains on fractures. Locally, pinhead growths are seen in soft clay zones (JAA, 1989).

Bisoni

The Bisoni mineralization is similar to that on Bisoni McKay Property and is contained in sheared and contorted black shale south of the Gibellini Mine. The property was explored by the Union Carbide Nuclear Co. (UCNC) in 1958 and 1959 (Davis and Ashizawa, 1959; Davidson and Lakin, 1961a, 1961b; Hausen, 1960). The black shale is inter-layered with bedded chert and calcareous shale and a little limestone. This rock sequence is transitional between the eastern and western types. The Bisoni and Gibellini prospects are interpreted to be part of the upper plate of the Roberts Mountain thrust preserved by down faulting.

Further details on the Bisoni Property are contained in Morgan (1989). Morgan describes the mineral claims, their history, location, regional geology, prospect geology, and mineralization.

MINERAL PROCESSING AND METALLURGICAL TESTING

Prior to Stina's exploration program, other companies conducted historic metallurgical trials from the vanadiferous shales on the Bisoni Mckay Property to test methods of vanadium extraction from the carbonaceous and oxidized shale mineralization. Research tests were conducted by Noranda in conjunction with the Colorado School of Mines Research Institute (CSMRI). Also TRV Resources - Inter-Globe Resources (Host Ventures) took bulk samples for heap leaching tests by BC Research. These tests were carried out between the mid 1970s and 1989, but reports are not available. To the extent of their completion they were not intended to produce any suggested process flowsheets. No further metallurgical tests are known to have been conducted until Stina's 2006 program.

In 2006 Stina contracted Hazen Research, Inc., of Golden, Colorado, U.S.A. (Hazen) to conduct metallurgical tests for suitable processing options from selected rotary cutting samples taken from the Fall 2005 drilling program and core samples from earlier Stina drilling. On January 31, 2007 Hazen produced a report of results addressed to James Wall, controller of Stina Resources. The test work focused on the front end of an overall process flow sheet that would determine what chemistry is required to bring vanadium into solution in order to separate it economically from the host (or gangue) minerals. The metallurgical procedures will be further optimized subsequent to a future preliminary feasibility study.

Sampling and Sample Preparation for Tests

The representative samples used for the metallurgical tests were taken from four RC holes and two core holes located in the Area A. The sampled RC holes included RC BMK 05-01 through RC BMK 05-06; the sampled core holes include DDH BMK 05-01 and DDH BMK 05-03. In each RC boring four contiguous 5-foot chip samples totaling 20 feet were collected each from the oxidized zone, transition zone and the carbonaceous zone. Samples from the core holes consisted of a single 5-foot sample from the oxidized zone in DDH BMK 05-01, a single 5-foot sample from the transition zone in DDH BMK 05-03, and a two 5-foot samples from the carbonaceous zone in DDH BMK 05-03.

Polished sections of samples from the oxidized, transition, and carbonaceous zones in each drill hole were crushed to -10 mesh and combined as a composite samples for each zone. A representative 1-kg split was taken from the each of the three composites from each drill hole. Then the 1-kg samples from each zone in each drill hole were combined to a single composite sample for each of the three zones thereby insuring that each hole was equally represented. A split was taken for a head grade sample from each of the three composites. The metallurgical tests used the composites for the experiments. The samples were representative of the typical shale, mudstone and siltstone lithologies in each zone. The head grades for the three composites used for the tests are given in Table 15 below (Hazen data). In addition, an x-ray fluorescence (XRF) scan (semiquantitative analysis) was performed for each composite.

TABLE 15
Head Assay Results for Zone Composites

	Assay, wt%					
	V	Fe	S (total)	C (total)	C (org)	CO_2 as C
Oxidized Zone	0.3	0.85	0.05	0.48	0.42	0.06
Transition Zone	0.26	0.8	0.44	3.6	3.3	0.27
Carbonaceous Zone	0.3	0.88	1.66	8.7	8.3	0.31

Lithology and Mineralogy Examinations

A detailed examination of the mineralogy of the composites involved microscopic examination of polished sections by polarized incident light microscopy and electron microprobe analysis. An x-ray diffraction analysis was also carried out for each zone composite. The following is a summary of the findings.

X-ray diffraction results

All samples consisted of quartz with trace to minor carbonates consisting of dolomite and siderite. In the transition and carbonaceous zones pyrite and marcasite were detected. Clay minerals were probably present but could not be identified; illite may be present.

Mircroscopic Examination

The findings of each zone will be described separately.

Oxide Zone – This lithology is stained a brownish color due to hydrated iron oxide stain and pigment. Most of the iron oxide appears to be goethite and is a relatively minor component of the total composition of the rock. The majority of the sedimentary clasts consist of siltstone-sized fragments of porous quartz with pores and interstices occupied largely by clay minerals. Goethite occurs on various morphologies and textures including microveinlets, and as coatings and pigments and very fine disseminations in quartz, some of which are likely pyrite pseudomorphs. It also can be found in very fine, independent masses. The sizes of the goethite occurrences are typically 300 µm or less. Some siltstone fragments carry carbonate crystals. Note that carbonate was rarely observed in field observations of core and cuttings in any of the zones.

Transition Zone – The brown color from the goethite staining is generally lacking. The siltstone clasts are mostly fine grained porous quartz as in the oxide zone. The quartz has minor organic pigment and contains traces of ultrafine disseminated pyrite. Goethite occurs in microveinlets and is disseminated in the siltstone. Some goethite occurs as pseudomorphs after pyrite. Traces of carbonate also occur in siltstone particles.

Carbonaceous Zone – In contrast to the transition zone, the carbonaceous zone siltstone contains less goethite and more pyrite (and some marcasite). The siltstone quartz clasts are stained black by organics and by probably very fine pyrite. Pyrite also is disseminated through the siltstone clasts and as independent aggregates, irregular shapes particles and euhedral crystals in chalcedonic quartz. Goethite is present as microveinlets cutting the siltstone fragments and as interstitial fillings. As in the other two zones, traces of carbonate occur in the siltstone clasts.

Vanadium Occurrence

The modes of vanadium presence in the three potential ore zones were analyzed by electron microprobe analyses of the polished sections. The highly variable vanadium concentrations occurred in association with iron oxides, primarily goethite, and at lower levels with carbonaceous material in the transition and carbonaceous zones. There is a lack of any consistent V:Fe ratio indicating the absence of any discrete iron vanadate minerals. Consequently the association of vanadium and iron oxides suggests ultrafine mechanical mixtures. The iron oxide occurrences also carry anomalous zinc levels at uneconomic grades.

The technical report author has observed several photo-images of the carbonaceous zone in the report showing rims or coatings composed of iron and vanadium on siltstone grains that run from 30% to over 70% V_2O_5. Images from the transition and oxide zones do not show these coatings. Possibly during chemical weathering changes that produced the oxidized state in the latter zones, the redistribution of iron may have removed these iron coatings and leached and reprecipitated the iron in a disseminated distribution. Some of the vanadium was also redistributed.

In the carbonaceous and transition zones, organic material occurs in local concentrations or is finely disseminated throughout the siltstone matrix. In organics of the transition zone V_2O_5 ranged from 0.3%-0.8%, and in the carbonaceous zone ranged from 1.0%-1.38% V_2O_5. All the occurrences show low levels of sulfur. Even though the vanadium levels are much lower in carbonaceous material than with iron oxides, the much more abundant presence of former suggests that the carbonaceous material is the major source of vanadium in the latter zones. The carbonaceous zone sample also reveals minute particles of elemental selenium and selenium-cadmium sulfide in association with organics.

Two leach residues were also examined to determine the location of the unrecovered vanadium. The microprobe analysis confirmed that unleached vanadium resided with the organic material after the acid pugging, curing and leaching procedures.

Vanadium Extraction Experiments

The mineralogical characterization of the mineralization leads to a four part experimental program to extract vanadium. These include: 1) concentration of vanadium by magnetic separation, 2) the direct leaching of oxidized mineralization with three lixivants, 3) acid pugging and curing on all mineralization types followed by leaching, and 4) oxidizing roasting and salt roasting of carbonaceous and transition mineralization and subsequent leaching. The first two processes (magnetic separation and direct leaching) produced relatively low vanadium recoveries and will only be briefly discussed here.

Magnetic Separation: A substantial portion of the vanadium is associated with iron oxides in the mineralization, especially in the oxidized zone. The overall wet and dry high intensity magnetic separation results were relatively low with the highest recovery at 35% vanadium. Hazen recommends no further development of this process.

Direct Leaching: Three trials of direct leaching of pulverized rock from the oxidized zone were conducted using dilute H_2SO_4, dilute acid containing SO2, and Na_2CO_3 at different leach resident time schedules. The first lixivant, H_2SO_4, produced 33% vanadium extraction at room temperature with 350 lbs/st acid consumption. The second experiment results at 36% vanadium extraction using dilute H_2SO_4 at room temperature and SO_2 (a reductant) did not significantly improve vanadium recovery from the H_2SO_4 leach alone. The Na_2CO_3 leach test yielded only 14% vanadium in the 6-hour bath at 50^oC and 11% at room temperature in the 48-hour test. Further work on the latter process was abandoned, and greater effort on direct low temperature leaching by H_2SO_4 with or without SO_2 will be minimized in favor of the procedures below.

Acid Pugging, Curing, and Leaching: This process is documented to extract vanadium commercially and has the advantage of delivering an aggressive attack of the V-bearing minerals due to the combination of elevated temperature and strong acid. This method produced very good vanadium extraction results from oxidized mineralization of greater than 90%, but extraction was less effective from the carbonaceous and transition mineralization with results of 50% and 56%. Hazen's Table 4 in Appendix 2 is a summary of the Hazen acid pugging, curing, and leaching results.

The mine process simulated in the lab experiment includes drying, crushing, dry-grinding (to a fine grind) and classifying the run-of-mine oxidized mineralization. The dry feed ore is then sent to the pug mill with addition of an appropriate dose of water or recycled leach liquor. At a second pug mill concentrated H_2SO_4 is added. Hydrating the acid and its reaction with the mineralized rock produces heat which is contained during the residence time of the pugged ore. After curing the pugged material and the leach solution are fed from pugging storage to agitated leach tanks. The vanadium dissolution occurs in multiple leach vessels. Solid-liquid separation occurs after leaching by filtration and washing or countercurrent decantation using thickeners. The washed solids are discarded as tailings and the remaining liquor is polished, filtered and sent to solvent extraction after the vanadium is oxidized to +5 valence using water. The vanadium is extracted into a organic solution (i.e. – kerosene) by mixing multiple times the organic solution with the aqueous solution. The aqueous raffinate is recycled. The +5 vanadium is stripped from the organic solution using amines or di-2-ethylhexylphosphoric acid. The resulting ammonium vanadate product (AMV) can be sold, or it can be calcined to produce saleable V_2O_5. A typical flow sheet for this procedure is included in Appendix 2.

Hazen indicated that the number of variables in the acid pugging and other procedures are probably not optimized, and that improvements can be made in terms of reducing reagent consumption, shortening residence times, and eliminating some steps while increasing vanadium extractions. Whether this method can be satisfactory for carbonaceous mineralization is questionable.

Salt Roasting and Leaching: To better address the extraction of vanadium from carbonaceous mineralization, the mineralized rock was roasted to attempt to liberate vanadium from the carbonaceous component. It is vital to increase vanadium recovery from this ore since the deposit consists mostly of carbonaceous shale. It is a known industry practice to proceed with an oxidizing roast followed by a salt roast to extract vanadium from carbonaceous ore. This method produced a 74% vanadium extraction from carbonaceous mineralization and 70% for transition mineralization. The summary of results are shown in Hazen's Table 5 in Appendix 2..

This procedure, as simulated by experiment, begins by roasting dry-ground ore in excess air at 625o-750oC to destroy the carbonaceous material. Salt (NaCl) is then added and mixed at a concentration of about 10% and the material is again roasted at 825^o-850^oC. The reaction within the salt roast is $NaCl+V_2O_5+H_2O = 2NaVO_3+2HCl$. The water is from humidity in the air. The HCl acid produced is captured and is used to dissolve the calcium vanadate. The calcium vanadate is recovered from solution using the methods previously discussed in the pugging, curing and leaching section. A general flow sheet for this method is attached in Appendix 2.

Hazen stipulates that these results are probably not optimized. Additional experimental work is recommended to enhance vanadium recovery as the needs of the project demands it.

MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

In November 2007 Stina contracted Maptek of Lakewood, Colorado to complete a V_2O_5 resource estimate of the limited portion of Area A drilled in 2005 and 2007. The resource estimate was calculated using the Vulcan 3D software program by Desiree Wentland, M.Sc. (geology) and Fernando Rodrigues, M.Sc. (mining eng.). Maptek developed the Vulcan program which has been used to evaluate mining properties worldwide. The vanadiferous trend in Area A is shown in plan view on Figures 3, 4, and 6. The resource estimate is restricted to the Area A region delimited by the 2007 RC drill holes and the 2005 DDH and RC holes as plotted on Figure 23A. The appraisal is the first recent approximation of indicated and inferred resources at Bisoni McKay. Based on existing exploration results, additional drilling in Area A will expand the depth and lateral extent of V_2O_5 resources.

Importantly, the drill hole spacing on Area A-North has generated confidence in the continuity of the vanadium distribution which, from comparisons of other drill hole information at BMK, appears to be generally representative of a typical mineralized sequence on the property. Based on the predictable geologic and overall grade continuity, an indicated resource has been estimated for Area A-North and an inferred resource was considered appropriate for Area A-South.

Methods

Grade Estimation using the Vulcan Program
(Inverse Distance Method: The inverse of the distances from the block center and the samples are used to weight the assay values, which are then averaged and used as the assay value for that block.)

Due to the nature of the broad continuity and thickness of the mineralized trend and the nature of the drill hole data within the deposit, Maptek chose the inverse distance method for the grade estimation of Area A. The inverse distance method denotes grades for each block within the Vulcan block model. To locate the grade samples for each block estimate, Vulcan uses a search ellipse with dimensions of 400 feet in the x-direction, 400 feet in the y-direction, and 200 feet in the z-direction at an trend of 21°NE and plunge of 20^{o}. Each estimate had a minimum requirement of two samples and a maximum of 40 samples. Also, to ensure a more accurate estimate for the block model, the calculations required a limit of three samples per drill hole. When the estimate is processing, the ellipse is centered within each block, and any assay samples that fall within the ellipse, according to the sample limits, are weighted using the inverse distance method and this information is used to estimate a particular block.

On the estimated block model for Area A-North, a Vulcan program script flags specific blocks that are indicated and inferred (IdIf) based upon the distances between the block center and samples. Any block within 200 feet of the sample sites is considered as indicated. Anything greater than 200 feet is inferred. The evaluation for Area A-South, which consists of only three RC holes, BMK-05-01, 02, and 03, was flagged entirely as an inferred estimate. The indicated and inferred categories are based on geologic and drilling density criteria.

Cutoff values of 0.1%, 0.2% and 0.3% V_2O_5 along with oxidation state (oxide and reduced shale) and MII categorized the resource estimate. The cutoffs determined the tonnage of the resource above each cutoff limit. The tonnage factor of 13.5 ft^3/ton is a representative estimate of a carboniferous shale such as from the Gibellini facies and equates to a density value of 0.074 short tons per cubic foot or 2.3 grams per cubic centimeter (Waltham, 2004).

In the author's opinion, for potential ore categories at BMK, "ore" refers to mineralization having a cutoff of 0.3% V_2O_5 with a minimum value of $51/ton at the average current V_2O_5 price of $8.50/pound (lb). This conservative cutoff is justified based on conversations with mining professionals familiar with the per-ton current cost of open pit operations. Potential marginal ore or subore includes grades between the 0.2%

and 0.3% cutoffs. It should be noted there has been no study of specific mining and processing costs at BMK to determine a more specific cutoff grade. These speculated cutoff ranges for potential ore are subject to modification as new information is acquired.

The Maptek report in Appendix 3 includes a list of parameters for the procedures used by the Vulcan program to create the resource model.

Field Criteria

In April-May of 2007 Stina selected the Area A-North for detailed drilling with twelve RC holes. In contrast to portions of Area B drilled by Stina in 2005, the vanadiferous trend in Area A has more of its mass intact and not broken and slivered by faulting as in Area B. The Area A holes were sited at appropriate intervals between the three borings completed in 2005 of Area A-North. The spacings between all the holes are approximately 110 feet. These are spread along two base lines 110 feet apart and include RC holes BMK 07-01 through 12 and RC BMK 05-04, 05, and 06 and the three core 2005 holes, DDH BMK 05-01 to 03 that were located at a common collar (Figures 6 and 23A). The drill hole definition in this relatively limited area of the vanadiferous trend is considered sufficiently detailed for an indicated resource estimate. Figure 23B defines the areas used to calculate the indicated resource in the north half of Area A and the inferred block in the south half. The drill hole locations are the puncture points through the horizontal plane at an elevation of 6708 feet that extends through the reduced shale zone beneath the redox boundary. See Figure 23C for the same plan illustrating the cutoff grades below the redox interface.

Continuous samples, collected at five-foot intervals, provides a complete record of vanadium mineralization for each drill hole. See Table 9 and Tables 10A, 10B, 10C, 7A and 7C for grade comparisons between holes. The vanadium grade, and thickness continuity was consistent enough in the north half to give confidence for an inferred resource calculation between holes RC BMK 05-01, 02 and 03 in Area A-South (Tables 7B and 9). RC footage used in the resource estimation for Area A totaled 7,730 feet; the three core holes totaled 1,155 feet.

There is an elevation discrepancy between the field elevations from GPS readings and elevations from U.S.G.S. topographic mapping. The error difference between the two surfaces ranged from about 5 feet to 25 feet. The GPS-plotted drill sites on resource profiles A-A', B-B', and C-C' (Figures 23D, 23E, and 23F) fall below the mapped topography. The Vulcan program was calibrated to plot the data to the mapped surface. When the elevation discrepancy is corrected, it will not appreciably modify the present grade estimation. The elevations will be professionally surveyed as part of the next phase of field work.

The indicated resource assignment is appropriate for the drilled portion of Area A-North because of the following geologic factors.

- The confidence of vanadium grade continuity is supported by the data from infill holes drilled in the north half. Dependable grade continuity between holes - average grades remain within potential ore-grade category between holes at 110-foot spacings intersecting reduced shale intervals.

- Enough holes have penetrated sufficiently thick sections of the reduced zone to the bottom of the significant mineralization to estimate an approximate thickness of the total contiguous package of potential ore-bearing strata (0.3% cutoff grades).
- The grade and spacial character of the mineralization in the oxide zone are revealed.

Exploration is not yet complete enough for a measured resource because of the following.

- The east, west sides and north end of the mineralization are not bounded with data.
- The dipping beds of the vanadifeous unit to east are not adequately mapped to explain mineralization depth variations between some drill holes.
- True width thickness estimations require additional confirming evidence.
- More grade data is needed for the very near surface mineralization in the upper five to ten feet. Perhaps this interval should be eliminated from a verifiable resource estimate.
- The nature of the structural factors effecting the disposition of the mineralized beds and interformational juxtapositions on the west side of the north half are, as yet, uncertain.
- Additional duplicate samples should be collected and from a split in the field at regular intervals to confirm grades from the sample interval.

Because of the erratic, often strong leaching of vanadium from the upper few feet of the soil and rock regime, Stina's trench sampling data was not considered representative for resource assessment on Area A. The impregnation of scattered but locally abundant caliche deposits in this zone (secondary $CaCO_3$ precipitated during arid soil formation processes) may interfere with vanadium recovery operations which may also be reason to strip this layer as waste during mining.

Based on the continuity of vanadium distribution found on Area A-North, the analytical data from three drill holes on the south half were used to estimate an inferred resource estimate for the vanadiferous interval intersected (see Figure 4 and 24B).

An inferred resource assignment applies to the drilled portion of Area A-South because of the following.

- The mineralized shale in the south half has the same observed grade continuity characteristics as the north half that permit an inferred resource to be estimated from the wider spaced holes on the south half.

The current factors limiting the confidence to calculate an indicated or measured resource estimate at this time include:

- Additional drill control needed to the east in order to establish dips and thickness of mineralized beds,
- the existing hole depths lack corroboration of true thickness along the strike length due to insufficient penetration of the reduced mineralized strata (RC BMK 05-01 and 02),

- the east, west and south mineral extensions remain undefined at depth and corroboration is needed for the presence or absence of structural disruption of the mineralized beds east and west sides of the trend.

A Comparative Study: Resource Assessment Methods for a Similar Vanadium Deposit

The author has had experience with a vanadium deposit within the same geologic class; the name and location of the deposit (outside of U.S.A. and Canada) must remain confidential at this time (Ullmer. 2006). This medium-sized deposit was in the initial stages of mining and recovery when visited. The host rocks, general geology, ore controls, and general pattern of mineralization are similar to the BMK deposit. The methods of resource estimation have afforded sufficient predictability for resource and reserve estimation and ore control for mining. A survey of their methods could help to provide reasonable limits for the work needed by Stina to prove resources at BMK. The deposit and methods are briefly described below.

Aspects of the deposit geology and mineralization are very similar to the BMK deposit. Vanadium occurs in black carboniferous shale except the shale has undergone low rank metamorphism to slate and phyllite and the former organic constituents are now reduced to graphite. The vanadiferous shale facies is part of a larger pelitic sequence within a lower Paleozoic formation. The Devonian vanadiferous Gibellini facies of the Woodruff Formation occupies a similar niche in the overall local stratigraphy, but the Woodruff Formation is not metamorphosed and carbon remains an organic compound. The metamorphism appears not to have redistributed the vanadium mineralization, and, as at BMK, the vanadium is disseminated throughout discrete bedding units.

Akin to BMK, the ore-bearing strata crops out as the eroded ends of steeply dipping beds that are limbs of a syncline sequestered within a graben-like rift that subparallels the strike of the bedding. The strike length of the exposed ore trend is about 4 km. There is more than one ore-bearing bedded unit at the mine, but the principal unit comprises over 74% of the resource. This ore body averages 10.25m thick but commonly thickens and thins due to local facies changes and faulting. The ore-bearing bed forms part of the limbs of a tight syncline, and the deepest part of the ore body at 230m is along the axis of the syncline. The average grade is slightly over 1.0% V_2O_5. The second largest ore bed averages 0.68% occupies 19% of the deposit. The 60% to 70% V_2O_5 recovery at the mine's mill and ore processing circuit was comparable, although slightly lower, of that achieved by Hazen's mineral processing and extraction tests on BMK mineralization.

One dissimilarity between the two shale units is while the shale at BMK hosts only vanadium in significant quantities, the host shale at the corresponding deposit also carries subeconomic to marginal quantities (not U.S.A. economic standards) of ancillary constituents such as molybdenum, phosphate, zinc and others.

The resource estimation and grade control at the corresponding deposit is determined by channel sampling in trenches dug at 10m intervals normal to the strike of the ore body and from sampled drill holes located at 100m centers. Trench samples are valid because ore grades in reduced shale begin at the surface exposures (after the thin alluvial cover is stripped), the grades are not highly variable over the span several trenches, and there is no weathering zone and associated leaching that leads to vanadium depletion and unrepresentative assays. The principal ore body is about 3000m long with a few breaks in bed continuity due to faulting and local facies changes. Sampling from twenty four holes, 45 trenches, and, locally, a small number of old shafts and short drifts have satisfactorily assessed the geology, grade, continuity, and structure of the ore trend. The drill hole spacing was adequate to assess dependable grade continuity down to 230m and the lateral ore continuity at depth. At last known, the overall resource of the primary ore unit plus the second largest unit amounts to nearly 25,000,000 tonnes carrying 241,500 tonnes of V_2O_5. The largest ore body has a reserve of 18,800,00 tonnes of 179,100 tonnes of V_2O_5 that converts to an average grade of 0.95%. The mine cutoff value is about 0.2% V_2O_5.

At BMK, trench sampling would not be a representative assessment method for resource estimation because of near-surface V_2O_5 leaching problems. Trench samples will have to be replaced by drill holes for resource assessment. Comparing the corresponding deposit assessment methods with appropriate BMK options, the homogeneous characteristics of the BMK mineralization suggest that future holes set at spacings greater than 110 feet apart would adequately characterize the ore zone for indicated or measured resource assessment unless structural or facies problems arise that would demand greater local subsurface detail.

BMK Resource Assessment Discussion

Table 16 presents the data for the indicated resource block for Area A-North. Table 17 shows the inferred resource data for Area-A-South. Figure 23B shows the Vulcan calculated inferred, indicated, and measured resources on a horizontal section at an elevation of 6708 feet across the reduced zone.

The Vulcan indicated resources were discriminated on the north half block. Based on drilling density Vulcan flagged Area A-South solely as inferred. Table 16 presents calculated mineralized tons and V_2O_5 grades that fall into the 0.1%, 0.2% and 0.3% cutoff categories in the oxide and reduced zones at radius distances from the sampled holes from 0 to 200 feet. As discussed earlier, the indicated and inferred ranks, respectively, for Area A-North and Area A-South are based on overall grade confidence from geologic factors and drilling density within each of the blocks.

Cutting high grade samples for this estimate was not considered. The vanadium grade distributions are not strongly skewed because of high grades; the highest grade samples (above 1.0% V_2O_5) do not represent a large quantity of the total vanadium. The highest grade measured from a drill hole is 1.79% V_2O_5. A nugget effect is not expected nor indicated for this type of deposit.

The V_2O_5 cutoff grades were selected because of their mine planning potential for an open pit operation. The Vulcan program easily accommodates adjustments to produce other cutoff data, when necessary. The cutoff grade categories on Tables 16, and 17 encompass the grades and tonnage exceeding 0.1%, 0.2%, and for all grades above the 0.3% cutoff. At current V_2O_5 prices of between \$8 and \$9 per lb, one can speculate that grades between 0.1% and 0.2% (0.1% = 2 lb/st V_2O_5) would likely be considered submarginal ore or run-of-mine rock, if not waste. Cutoff grades between 0.2% and 0.3% (4 to 6 lbs/t) could represent low grade ore or run-of-mine rock, and mainstream ore grades could fall above 0.3% V_2O_5 (greater than 6 lbs/t).

Some observations from the analytical data and the results of the resource calculations are as follows.

1) Table 16 shows the highest tonnage occurring in the 0.3% cutoff category. The grade span in the latter category ranges from 0.3% to 1.79% V_2O_5 with the majority of grades ranging from 0.4% to 0.8%. The mineralization averages 0.47% in the reduced zone and 0.39% in the oxide zone within Vulcan's indicated and measured categories in Area A-North.

2) In Tables 16 and 17, the tonnages for each cutoff totals equal to all mineralization up to that cutoff. In each oxide and reduced zone the higher grade cutoff increments carry the greater tonnage showing that the mineralization is dominated by higher grades exceeding 0.3% with little marginal mineralization penetrated by drill hole approaching the 0.3% V_2O_5 beds. The dominance of grades above the 0.3% cutoff, especially in the reduced zone, is illustrated in profiles A-A', B-B', and C-C' (Figures 23D, 23E, and 23F) where the thick vanadium-bearing bedded sequence is clearly outlined by the 0.3% cutoff color marker. Profiles A-A', B-B', and C-C' also illustrate the relatively thin transition from high grade mineralization to uneconomic grades along the bottom contact. The upper contact is less distinct because leaching in the oxide zone has often smudged it. As an exception, the marginal grade increases on the west side of profile B-B' (Figure 23E) near the structural disturbance caused by the fault zone discussed earlier (see also drill hole section - Figure 14). Data is lacking here near the fault zone for a more accurate resource assessment from the block model.

Note profile C-C' (Figure 23F) plots an essentially horizontal grade break that represents Vulcan's extrapolation of the grade difference across the redox boundary. The poor definition is due to the lack of corroborating drill hole data around RC BMK 05-03, mainly because it is the final drill hole to the south (see Figure 23A, 23B and 23C and Figure 4.

3) The resource calculations for the indicated block at Area A-North includes 10,626,844 tons at the 0.2% cutoff averaging 0.39% V_2O_5 and 8,073,844 tons at the 0.3% cutoff averaging 0.43% V_2O_5 (Table 17).

4) The inferred resource data for Area A-South and the relatively small increment for Area-North is shown on Table 17. The 0.2% cutoff includes 7,381,278 tons of mineralization averaging 0.42% V_2O_5. The 0.3% cutoff grades contains 5,490,356 tons of oxide mineralization averaging 0.48% V_2O_5. The average V_2O_5 grades in two of the

three RC holes, BMK 05-01 and 02 in the south half, are slightly higher than the RC holes in Area A-North (see Table 17 and Table 9). It was mentioned earlier that the 2005 core holes, located directly north of holes 05-01 and 05-02, also have intersected higher V_2O_5 grades than the Area A-North holes. Whether this may be part of a larger trend has not been established.

In the “Conclusions” subsection 3.16 of the April 16, 2006 Bisoni McKay Technical Report, coauthor John James speculated that the mineralization in Area A would range from 16 million to 24 million st (short tons) with a grade ranging up to 0.5% for the smaller tonnage and 0.2% for the higher tonnage. The current tonnage estimate for the 2007 calculated inferred and indicated resources is lower than these speculated tons because the current drilling coverage does not include all the significant mineralization believed by James and the author to exist at depth and outside the margins of the present assessment block.

Table 16: Indicated Resource Calculations for Area A-North

Lithology	IdIf	Distance to Measured Samples	0.1% V_2O_5 Cutoff Tonnage	0.2% V_2O_5 Cutoff Tonnage	0.3% V_2O_5 Cutoff Tonnage	Average grade for 0.1% V_2O_5 Cutoff	Average grade for 0.2% V_2O_5 Cutoff	Average grade for 0.3% V_2O_5 Cutoff
Oxide Total	Indicated	0-200 ft	5,386,090	4,617,674	3,546,154	0.33	0.36	0.39
Reduced Total	Indicated	0-200 ft	8,069,182	6,009,170	4,527,690	0.35	0.42	0.47
Grand Total			13,455,272	10,626,844	8,073,844	0.34	0.39	0.43

Table 17: Inferred Resource Calculations for Area A-South and North

Lithology	IdIf	Distance to Measured Samples	0.1% V_2O_5 Cutoff Tonnage	0.2% V_2O_5 Cutoff Tonnage	0.3% V_2O_5 Cutoff Tonnage	Average grade for 0.1% V_2O_5 Cutoff	Average grade for 0.2% V_2O_5 Cutoff	Average grade for 0.3% V_2O_5 Cutoff
South Half								
Oxide	Inferred	All	3,363,818	2,227,622	1,257,334	0.26	0.32	0.37
Reduced	Inferred	All	4,851,884	4,260,328	3,486,880	0.44	0.47	0.52
Total			8,215,702	6,487,950	4,744,214			0.48
North Half								
Oxide & Reduced	Inferred	200+	1,064,786	893,328	746,142	0.34	0.39	0.45
Grand Total			9,280,488	7,381,278	5,490,356	0.36	0.42	0.48

OTHER RELEVANT DATA AND INFORMATION

No further comments.

INTERPRETATION AND CONCLUSIONS

Area A

The following interpretations and conclusions refer to both halves of Area A (Figures 4 and 24 and drill hole sections).

- In Area A the pattern of holes from the combined 2007 and 2005 drilling as well as logs from the historical Hecla holes have confirmed a thick, contiguous facies of stratabound and strataform vanadium mineralization within carbonaceous shale that strikes northward through Area A. The 2007 drilling reasonably confirms the continuous grade range from 0.2% to a maximum of 1.79% V_2O_5 both along strike and down dip for the 800-foot length of Area A-North as well as being reasonably established for an equivalent distance for the Area A-South. The similar grade ranges, general mineralization characteristics, and host rock characteristics between the mineralization intercepts in the north half and boring intercept results in Area A-South (also in Area B holes) generates a satisfactory level of confidence to assess future mineral resources and resource estimations at hole spacings between 100 and 200 feet, barring structural disturbances or facies changes that would require greater detail.
- Vanadium has been partially leached from the oxidized zone, but significant grades and thicknesses remain for a mining resource. The vertical depth of the oxidation averages about 180 feet with a typical abrupt increase in grade below the redox boundary in most holes. The cuttings and core analyses reveal anomalous grade surges of 50% to 150% of V_2O_5 up to a 35 feet thick immediately below the redox zone that likely is due to supergene enrichment. The grades above and below the elevated zone drop back to an average equivalent for the rest of the mineralized interval (Table 5). However, these zones are not consistent enough to be a dependable vanadium enrichment blanket. At present these grade pulses will be treated as normal bedding variations for resource calculations.
- To date the true thickness estimations of the package of contiguous vanadium-enriched beds with grades exceeding 0.3% range from 250 feet to 300 feet in Area A.
- The three 2005 RC holes and three 2005 core holes and the twelve 2007 RC infill holes yielded sufficient data to produce an indicated resource inventory on the limited area in Area A-North using the indicated and measured categories from the Vulcan program (Table 16). Here the indicated resource estimate of combined reduced and oxide mineralization at the 0.3% cutoff grade totals 8,073,844 tons of 0.43% V_2O_5. Adding the relatively small volume of 746,142 tons of Vulcan-inferred mineralization at 0.45% brings the total up to 8,819,986 tons.
- Based on the good continuity of vanadium mineralization in the north half, an inferred resource inventory was calculated in Area A-South for the drilled

portion of the extension of the vanadiferous beds using data from the three RC 2005 borings spaced at 213 feet apart. The inferred resource at the 0.3% cutoff is 4,744,214 tons at 0.52% V_2O_5 (Table 17)

- The continuity of mineralization at 0.3% cutoff along the three dimensions of the mineralized stratigraphic block is illustrated on the plan slice maps, Figures 23B and 23C, and sections on Figures 23D, 23E and 23F. Figure 23C is a horizontal section spanning the calculated mineralized area at the 6708-foot elevation plane which is below the redox interface within the reduced zone. The east and west boundaries of the 0.3% cutoff mineralization reflect the width of the mineralization based on the stratigraphic dip. The holes sites are the puncture points for each bearing on the plane.
- The length of the vanadiferous trend estimated for resources through the north and south halves of Area A exceeds 1,600 feet of strike length and up to 525 vertical feet, down dip. The true thickness of vanadium-bearing unit is up to 300 feet. Geologic evidence and historic Hecla trenching and drilling supports the existence of additional mineralized trend north and south of the present limits of Stina exploration in Area A.
- The down-dip side (east side) of the vanadiferous trend remains without drill definition and will likely be spacially limited to the east by Devils Gate Limestone fault block outcrop on Area A-South (Figure 4). On the north half the limestone outcrop is concealed and the down-dip extent of the beds can only be speculated at this time.
- On the west side of the trend, the Woodruff shale is in visible contact with the Devils Gate Limestone outcrop in the south half (Figure 4). Beyond the north end of the limestone outcrop (Figure 4) the Devils Gate plunges below the surface and the Woodruff Formation must be folded over the limestone and in contact with the fault bounding the west side of the limestone outcrop. Shale dips in the west end of Trenches 24 and 25 are steep and some appear overturned suggesting that a very asymmetric anticline may exist along the fault line. The mineralized zone along the fault has yet to be defined by drilling; If overturned, the vanadiferous beds on the west limb may dip steeply east and remain an accessible ore reserve.
- Of the four vanadium extraction methods Hazen tested, two methods successfully recovered acceptable percentages from the Bisoni McKay ore. Both “magnetic separation” and “direct leaching” by acid and alkaline lixiviants had unacceptable recoveries. The “acid pugging, curing and leaching” method produced greater than 90% V recovery from oxidized mineralization but less than 60% from reduced mineralization. The “salt roasting and leaching” method recovered 74% V from the carbonaceous (reduced) and transition mineralization. Hazen believes the recovery procedures are not yet optimized to their fullest recovery potential. For a comparison, the undisclosed mill (and vanadium mine) visited in 2006 had a V recovery rate of 60% to 70% from ore with a head grade of 1.46% V_2O_5. The ore was pelletized, salt roasted and acid leached in pugging basins. The process engineers were also experimenting with various optimization procedures.

Area B

In Area B the evidence from the 2005 Stina RC and DDH holes and historic Hecla holes indicate that faulting has disrupted and fragmented the Woodruff Formation and put the vanadiferous beds in juxtaposition with Devils Gate Limestone in patterns which have yet to be understood (Figure 5). Here the Woodruff shale is bounded on the east and west by older rocks in a graben-like setting. Both sets of holes reveal the shale section is close to or rests upon or against the Devils Gate Limestone thus limiting the width of the mineralized zone between the limestone walls on either side. The contact relationships are uncertain, but broken rock encountered in some of the borings indicates a fault contact. Also, outcrop evidence points out that the vanadiferous beds project under the older Devils Gate Limestone on the west side of Area B. This suggests a fault geometry such as a thrust plate, thrust slivers, or slide blocks. Some of the Devils Gate Limestone dip attitudes on the west side outcrops appear to be overturned also indicating a dynamic rather than a passive structural event. The thickness and average mineralization grades of the vanadiferous unit intersected by the eastern line of Hecla's RC holes is typically less than Area A, but the thickness and grades improve in the line of Stina and Hecla holes on the west side of the graben. The relatively thin sequence of lower grades intersected by the former Hecla borings may be due to weathering and leaching that extends down to the lower shale beds at the bottom of the mineralization zone. Because the exploration thus far suggests potential for smaller, more irregular tonnage in the explored parts of Area B, further exploration may be deferred until a future phase of work when the structural setting is better understood.

RECOMMENDATIONS

Area A

The ultimate aim of the Phase II program is to develop a resource inventory over a significant part of the vanadiferous trend to the point of justifying a preliminary assessment report. Further exploration and appraisal tasks in Area A will explore for extensions of vanadium mineralization east, west, north and south of the known trend and block out additional resources. The drilling program should include up to 13 core holes (DDH) and up to 36 RC holes, totaling 6,530 feet and 20,000 feet, respectively, in and around Area A. See Figure 24 for general locations of additional drilling and exploration adjacent to the 2007/2005 drilling programs in Area A.

Surface mapping coupled with core holes and RC drilling will evaluate the ends and east and west sides of the Area A mineralization trend for additional vanadium resources. Also infill drilling where necessary will strive to resolve unexplained structural anomalies found during the 2005-2007 drilling and to tighten up evaluation of the Area A-South to upgrade the resources category to "indicated". The following summarizes the work planned to enlarge and better appraise the Area A resource base. See the "Interpretation and Conclusions" section for explanations of some of these recommended activities and Figure 24 for areas identified for drilling and other exploration. Supplemental diamond drill core holes will be sited in critical locations to better define lithologic elements. The prelude to drilling will include surface field mapping and surface examinations to better determine relevant drill sites and to gain more understanding of the surrounding structure. Additionally, professional photogeologic mapping of Area A and the entire BMK property and surrounding vicinity is an excellent and inexpensive method to provide a base of geologic information and understanding to be followed up by ground mapping

- Establish the down-dip extension (eastward) of the vanadiferous beds beyond the present drill hole locations: The work will block out inferred or indicated resources down to a minimum of 600 feet. See Figure 24 – A1 for the location of designated area. If the stratigraphy cooperates, this drilling will also measure the depth from the top of the mineralization to the top of the Woodruff Formation. This stratigraphic information will be valuable when exploring for deep mineralization that may also lie under younger strata west of the fault (see bullet below and Figure 24 – A4).
- Explore and map the vanadiferous shale trend under sedimentary cover north of the limit of current drilling: Block out inferred or indicated resources as much as financially feasible for resources. If an offset has shifted the mineralized unit, conduct a minimum of drilling to determine where it ended up for future reference. See Figure 24 – A2 for location.
- Block out resources along the east side of the fault: On the west side of Area A-North, drill to resolve the fold pattern of the vanadium-bearing beds and the fault disruption of beds along the east margin of the fault zone. See Figure 24 – A3 for location.
- Angle drill holes eastward on the west side of the west fault to cross the fault zone and penetrate the Woodruff lithology: Also, if the stratigraphy is favorable, one or two vertical hole(s) should advance down to locate the possible down-faulted Woodruff Formation. This will determine if vanadiferous beds are present within feasible mining depths. See Figure 24 – A4 for location.
- Extend the mineralized trend south of the current limits of drilling: Drill a series of holes to evaluate the mineralized trend intersected by Hecla holes 14 and 15 located south of the limits of the Area A-South resource block limit. See Figure 24 – A5 for location.
- Sufficient infill drilling to intersect a complete thickness and attitude confirmation of the vanadiferous unit between DDH BMK 05-03 and RC BMK 05-03 in Area A- South. (Figure 24-A6). Drilling to east between the 2005 holes and the Devils Gate Limestone outcrop; the holes to the east (down dip) will evaluate the grade tenor and depth for a potential resource assessment.
- In the 2007 drill pattern, borings should confirm or better characterize the apparent dip changes observed in hole pairs RC BMK 07-04 and 06 and RC BMK 07-07 and 08 (see sections Figures 18 and 20 and Figure 24-A7).

Exploration between Area A and Area B

The Stina and Hecla holes in Area B identified the vanadiferous shale trend that appears to continue north of Area B toward Area A and, on evidence from a single Hecla boring, BMK-13, located half way between Areas A and B (Figure 3), carries mostly low (0.2%

to 0.3%) to moderate V_2O_5 grades (0.3% to 0.4%). The proximity of adjacent Devils Gate Limestone bounding parts of the east and west sides of the trend in this area suggests the Woodruff Formation may be within a more confined graben wedge than in Area A. Grade/thicknesses in BMK-13 includes 190 feet of 0.26% V_2O_5 in reduced beds terminating at 385 feet. Stina samples from the neighboring Trenches 14, 15, and 18 have sample groupings averaging 0.26% to 0.3% V_2O_5 (Figure 3).

To further test the potential for this area, surface mapping is recommended to identify and understand the structural setting. Depending on these results, at least two holes could be drilled about 400 feet to either side of BMK-13 into the opposing dip of the Woodruff shale. The drill design would intersect the vanadiferous beds within the reduced zone to determine a full suite of grades across the mineralized unit. Future exploration in this area will largely depend on these results.

To further address the geologic complexity in Area B, surface mapping should continue in this area during Phase II as time permits.

Area C

South of Area B the potential of the vanadiferous trend has been only lightly touched by earlier exploration efforts, but the limited results show promise for a productive extension of the mineralization trend. Two RC holes by Hecla, BMK-4 and BMK-5, advanced into mineralized carboniferous shale (Figure 3). BMK-4 intersected contiguous beds of vanadium mineralization of interest from 75 feet to 280 feet, the total depth (TD) of the hole. Included are 75 feet of 0.25% and 130 feet of 0.44% V_2O_5. The hole bottomed in 0.93% V_2O_5. Hole BMK-05 only advanced to 180 feet and might have entered directly into a deep reduced section of shale because drilling only encountered 35 feet of 0.33% V_2O_5 of reduced shale before advancing into a barren 50-foot interval of reduced shale. The old Hecla trench network in Area C and between Areas B and C has not been sampled by Stina. Hecla trench data is unavailable.

Recommended work should start with surface geological mapping beginning south of Area B in the Willow Creek valley and continuing south through Area C and across the next drainage south (see Figure 3 for Area C location and Figure 2 for the claim map and topography). According to Hose (1983), the last mappable bedrock outcrops at the south end of the property are found on the southern-most Ginsu claims located on the interfluve south of the second drainage. The mapping may include sampling of selected trenches for the purpose of mapping the vanadium trend. Following the surface work, at least five holes will confirm, locate and trace the vanadiferous shale trend and assess its thickness, grade, and dip. If grade and thickness warrants, a sufficient subsurface assessment should be continued for at least an inferred resource estimate. The area to be drilled should extend from Willow Creek valley to Area C and south, if warranted. .

General Recommendations

- Land surveying should locate all drill holes (other than by layman GPS locations and elevations) and also, if necessary, locate claim boundaries and lay out base and grid lines in Area A and Area C;

- stake two (2) additional lode mining claims, contiguous with the southern boundary of Willow No. 12, and the western boundaries of Willow No. 13 and Ginsu No. 16 (see unnamed claims on Figure 2). Also stake claims as needed to secure additional projections of the vanadiferous shale as discovered or expected.

Budget Projection

Table 19 shows the projected budget for the next stage of Phase II work on the project. The drilling should take a significant portion of the vanadium trend into the indicated or measured resource category and should have additional mineralization as inferred resource or as a newly discovered extension of the mineralization.

TABLE 19
Projected Budget for next Phase II Program

Expense Categories	$ Amount	
Drilling	477,500	
Assay	105,000	
Contractors	119,000	
Metallurgy	50,000	
Surveying	5,600	
Travel, Accomodation	53,000	
Permits and bond	10,500	
Storage rent	7,400	
Resource Estimation	60,000	
Market Study	20,000	
Preliminary Assessment	90,000	
Total	998,000	
10% Contingency	99,800	
Grand.Total	**1,097,800**	US$
Exchange rate 1.04%	**1,141,712**	CAN$

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(vii) Comparison of Drill Bids for Gibellini Metallurgical Drilling. (James Askew Associates, Inc., 1989).

(viii) Bulldozer Trench BT 8. Gibellini Vanadium Project, Eureka Project, Nevada. Rib maps. 10 feet to 1 inch. James Askew Associates, Inc. (1989).

(ix) Bulldozer Trench BT 9. Gibellini Vanadium Project, Eureka Project, Nevada. Rib maps. 10 feet to 1 inch. James Askew Associates, Inc. (1989).

(x) Assay Map. Gibellini Manganese, Zinc, Nickel Mine. US Bureau of Mines Project No. 373. Scale 20 feet to 1 inch . Paper Copy. (Undated).

Technical Report dated this 20th day of February 2008.

Edwin Ullmer

CERTIFICATE OF QUALIFIED PERSON

1. I, Edwin Ullmer, do hereby certify that I am a geologic consultant for:Stina Resources , Ltd., Suite 10, 8331 River Rd. , Richmond, B.C., Canada,V6X 1Y1.
   My residence is 11815 Bradburn Blvd, Westminster, Colorado, U.S.A.- 80031.
   My business address is the same. Email address: edullmer@aol.com
   Phone: (303) 466-8547

2. I am an independent geologic consultant and contractor for the mining industry.
   I graduated with a Bachelor of Arts degree in Geology from Upsala College, East Orange, New Jersey, U.S.A. in 1963. In addition, I obtained a Master of Science Degree in Geology from the University of Arizona, Tucson, Arizona, U.S.A. in 1975 and a Master of Education Degree from University of Arizona in 1973.

3. I am a registered professional geologist in the State of Wyoming - No. PG-894 and the State of Nebraska - No. G-0 177. In addition, I am a member of the Society of Economic Geologists (No. 807596), an international society of professional mineral geologists.

4. I have worked as a minerals, mining, and environmental geologist for 38 years. My experience includes but is not limited to exploration drilling, geological mapping, geologic interpretation and exploration and development management duties on mineral projects and mineralization similar to Bisoni McKay.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-10 1) and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.

6. I am responsible for the authorship of the Phase II Technical Report, Bisoni McKay Vanadium Property, Nye County, Nevada for Stina Resources Ltd, January 2008.

7. I have not had prior involvement with the property that is the subject of the Phase II Technical Report other than working on the property supervising drilling as a contract geologist for three weeks in 2005 which gave me sufficient information to prepare this report. I also coauthored the April 16, 2006 Technical Report.

8. I am not aware of any material fact or material change with respect to the subject matter of the Phase II Technical Report that is not reflected in the report, the omission to disclose which makes the report misleading. I am independent of the issuer applying all of the tests in Section 1.4 of NI 43-101.

9. I have read NI 43-101 and Form 43-101, and the Phase II Technical Report has been prepared in compliance with that instrument and form.

Dated this 20th day of February 2008.

Edwin Ullmer

FIGURES