## GEOLOGICAL AND GEOCHEMICAL REPORT

## FIRE CREEK PROSPECT

CLAIM NOS.: 510817, 510819, 510820

## NEW WESTMINSTER MINING DIVISION

#### **MAPSHEET NTS 092G16**

LATITUDE 49° 47' N LONGITUDE 122° 14' W

Dates of work: September 1-14, 2005

Filed for Assessment Work: February 21, 2006

For: Cumberland Resources Ltd. Suite 950 – One Bentall Centre 505 Burrard Street, Box 72 The Port Vancouver, BC, V7X 1M4

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GEOLOGIA

February 2006

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#### Summary

In 2005, Cumberland Resources Ltd. acquired claims covering the Fire Creek gold prospect, located a few kilometers northwest of the head of Harrison Lake, in southwest British Columbia. The following is an overview of the property, including history of the prospecting and exploration of the property, as well as a report on the work done by Cumberland Resources Ltd. on this property in 2005. Information on the exploration history is taken from assessment reports from previous exploration programs of the Fire Creek property (B.C. Assessment Reports 09783, 14663 and 17508). The report of current work includes results from surface geological mapping at 1:2,000 scale, a soil geochemical survey (39 samples) and geochemical analyses of 116 rock samples (102 surface grab and chip samples and 14 core samples from a previous drill program).

#### Introduction

In August 1980, red oxide-stained boulders were noted in the creek bed at the Fire Creek Bridge during a regional sampling program by Territorial Gold Placers Ltd. These float boulders proved to be strongly altered and bleached tuffs, with pervasive silica and sericite alteration and 10-20% pyrite. This lead to additional exploration farther up the Fire Creek valley, to find the source area of the boulders. Similar altered material was found 2.5 kilometers upstream from the bridge on the sides of near-vertical rusty cliffs. The altered zone was thought to resemble a pyritic stringer zone assemblage, typical of the footwall of other massive sulfide deposit prospects in the area. The area surrounding the altered cliffs was staked immediately thereafter (Hades and Brimstone claims), and samples from the sulfide mineralization zone and along staking lines were collected.

Results from this sampling program indicated strongly anomalous gold values (up to 470 ppb) as well as anomalous copper, lead, silver and arsenic values. A pan sample was also taken at the logging road bridge, where the rusty float boulders were first observed. This sample contained 5430 ppb gold and 271 ppm copper, suggesting a significant gold source within the Fire Creek drainage basin.

A second field program was completed on the Fire Creek prospect in 1981. This program included a focused study on the south side of the creek, to test the hypothesis that the rusty cliffs are the source of the gold anomaly. This program resulted in the delineation of a 1000 meter long, 350 meter wide and 70 meter deep altered and mineralized zone. Geochemical results indicated that this zone is anomalous in gold, arsenic, silver, barium and lead, and is depleted in zinc. Surface samples from along the strike length of the zone ranged from 1 to 1950 ppb gold, and average 307 ppb. The zone was reinterpreted as a siliceous hydrothermal hot spring, rather than the footwall of a massive sulfide system.

In 1984, the property was optioned to Tenquille Resources Ltd. Airborne VLF-EM and magnetometer surveys were completed, as was an Airphoto Tectonic survey. A diamond drill hole was attempted from the logging road running along the south side of the creek, but the equipment utilized was unable to penetrate the gravel-till overburden. The property was returned to Hycroft Resources in 1985.

Further mapping and sampling continued through 1986, and a strong gold anomaly (>100 ppb) was measuring 1000 by 100 meters was outlined, with a strike trending northwest by southeast, crossing Fire Creek at the site of the rusty near-vertical

cliffs. The highest gold values were found on the central part of the northwestern lobe of the anomaly. This area was targeted for a diamond drill program in 1987.

Nine diamond drill holes, totaling 850 meters, were completed off the north side of Fire Creek. Three holes that were to assess the projected mineralized zone were stopped short due to technical difficulties (87DH-2, 87DH-3 and 87DH-8). Drill hole 87DH-6 was also abandoned due to technical problems. Highlights from this drill program are shown in table 1:

Hole_ID	From	То	Interval (m)	Au g/t	Ag g/t	Cu %	Zn %
87DH-1	30.3	33.3	3.00		44.0	0.47	0.08
87DH-1	73.8	91.8	18.00	1.30	4.0		
inc	85.8	91.8	6.00	2.54	8.3		
87DH-2	24.8	27.8	3.00		9.1	0.80	0.35
87DH-2	53.3	56.3	3.00		127.3	1.01	0.18
87DH-3	24	28.5	4.50	•	9.6	0.12	0.44
87DH-3	33	34.5	1.50	0.96	46.0	0.35	1.62
87DH-4	17.3	18.8	1.50	1.68	5.5	0.28	
87DH-4	51.8	54.8	3.00	1.01	2.9	0.22	
87DH-5	17.3	20.3	3.00	3.05	4.0	0.10	
87DH-7	66.8	72.8	6.00	1.05	3.4	0.12	
87DH-8	58.8	60.3	1.5		44.4	0.69	0.10
87DH-9	10.8	13.8	3		32.4	0.30	1.30
87DH-9	33.3	34.8	1.5	1.58	122.5	0.71	0.14

Table 1: 1987 Drilling Program Highlights

Results from the 1987 drill program outlined a large sulfide-bearing silicasericite-chlorite alteration zone that is approximately 20 meters in true thickness to the northwest, increasing to 40 meters to the southeast. Drill hole intersections also outlined an approximate strike length of 200 meters and a depth greater than 120 meters. The alteration appeared to lose intensity to the northwest and likely pinches out. The extent of the alteration to the southeast was unknown and may continue for several hundred meters beyond the boundary of the zone delineated by drill hole data. Three continuous gold-bearing zones were outlined, with a maximum grade of 5.93 g/t gold, and

anomalous concentrations of Cu, Pb, Zn, and Ag. Further drilling was proposed to identify the limits of the gold-bearing zones. The overall system was reinterpreted as a potential massive sulfide deposit environment, due to the significant occurrences of primary sulfides, as well as high Cu, Pb, Zn and Ba content.

Cumberland Resources Ltd. of Vancouver, B.C. acquired ground covering the Fire Creek prospect in mid April 2005. A preliminary visit was made to the property by helicopter in June, 2006 and a field program was carried out in September 2006.

## Location

The Fire Creek prospect is located within the Fire Creek watershed, which drains into the Lillooett River 7 kilometers upstream from the northwest end of Harrison Lake (see Figure 1). The property is 85 km northeast (straight line) from Vancouver. However, road access from Vancouver requires an approximately 200 kilometers drive through Pemberton and along the Lillooett River road. Road access may also be possible northward from Harrison Mills but the road near 5-Mile Bay is reported to be extremely rough and would necessitate a 4-wheel drive vehicle.

The property is located 2-3 kilometers upstream from the mouth of Fire Creek. The alteration zone straddles the creek and thus access to both the north and south banks are necessary. The north side is accessible by a logging access road from the western Lillooett River road that continues up the Fire Creek valley to Fire Lake (4-wheel drive vehicle recommended). Overgrown access roads from the 1987 drill program could be easily rehabilitated to provide direct vehicle access to the altered zone from the logging road. The south side of Fire Creek can be accessed by foot along old logging roads.



These overgrown paths could also be easily rehabilitated for use with 4-wheel drive vehicle.

The topography of the claims is steep and mountainous. The main area of geological interest is characterized by extremely steep canyon walls (approximately 80 meters high), including the original rusty and bleached exposures that are considered the source of the rusty float boulders. These cliffs extend directly into the creek, making it unfeasible to easily cross the creek to the opposite bank. The steep terrain also results in the inaccessibility of many outcrops on the property without the use of climbing and/or safety equipment.

The vegetation varies from thin to very thick. It can be especially dense in previously logged areas on the south side of the creek. The old and overgrown drilling and logging roads are easy to move through and provide the best accessibility to the entire property.

A temporary logging camp, run by Pacific International Helilog, is situated at the northwest end of Harrison Lake. This camp is a 10 minute drive from the Fire Creek access road, and provided ideal accommodation while doing work on the Fire Creek property. A disused airstrip at the camp could be easily reclaimed for air transportation.

The Fire Creek property was obtained by Cumberland Resources Ltd. in 2005. A two week field program in the fall focused on a general reconnaissance of the property, including reevaluation of previous work, and a sampling program. This program focused on the altered zone identified by previous workers and covered an area of 1.6 by 0.6 kilometers. The primary metal of interest during this program was gold. The geology of

the property was mapped at a scale of 1:2,000. The sampling program consisted of a geochemical survey of 116 rock grab and chip samples and 39 soil samples.

## **Mineral Claims**

The Fire Creek property is owned by Cumberland Resources Ltd., and is composed of three claims, totaling 73 units (1522.7 ha) as shown in Figure 2. Details are shown in Table 2. The claims are currently in good standing.

CLAIM NAME	CLAIM #	OWNER	UNITS	EXPIRY DATE
Fire 1	510817	Cumberland Resources Ltd.	24	APRIL 15, 2006
Fire 2	510819	Cumberland Resources Ltd.	24	APRIL 15, 2006
Fire 3	510820	Cumberland Resources Ltd.	25	APRIL 15, 2006

Table 2: Fire Creek Property Claim Details
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## **Regional Geology**

The geology of Fire Creek forms part of a broad package of rocks known as the Fire Lake Group, which was originally delineated by Roddick (1965). Paleontological work by Jeletzky (1965) on fossils collected by Roddick resulted in an Early Cretaceous age of deposition. The Fire Lake Group is subdivided into the lower Peninsula Formation and upper Brokenback Hill Formation. The descriptions of the geology, structure and mineralization given below is largely a summary of a detailed report on the Fire Lake Group by Lynch (1990). The regional geology in the vicinity of the Fire Creek property is shown on Figure 3.

## Peninsula Formation

The Peninsula Formation is the oldest stratigraphic unit in the Fire Lake Group. The formation is best exposed to the southwest of Fire Mountain. Faulting has resulted in





no exposure of the base of the formation. The formation is further subdivided into two members. The lower conglomerate is about 1200 meters thick, with variable type and distribution of clasts. Clasts include andesite, rhyolite, and feldspar porphyry, with minor chert, siltstone, detrital quartz and feldspar crystals, and granite. The member grades from calcite cemented, cross-stratified channel gravel and sand, likely of fluvial origin, into coarse beach deposits, characterized by near-shore flora and fauna. The overlying member is an 800 meter thick, well-bedded arkose, with planer cross-stratification, hummocky cross-lamination, graded bedding and soft sediment deformation features. Minor limestone beds or epidotized calc-silicate rock are also present.

The overall stratigraphy of the Peninsula Formation is thought to represent a transgression, from fluvial to beach and possibly shallow marine environments. Brokenback Hill Formation

The Brokenback Hill Formation is characterized by a volcanic succession and is subdivided into four members. The lowermost member is composed of interbedded feldspar crystal tuff and slate or phyllite. The tuff contains predominantly moderate to well-sorted, rounded, medium grained feldspar, in a pelitic matrix. The member is generally massive, but also displays graded bedding, flame structures and rip-up clasts. The compositional dominance of feldspar, along with the lack of quartz and lithic fragments, suggests deposition under subaqueous conditions.

Above the feldspar crystal tuff is an andesite and intermediate volcanic member, with rare rhyolite. The volcanics occur as massive andesite flows with plagioclase and amphibole phenocrysts, and heterolithic volcanic breccias or conglomerates. Texturally, these rocks are poorly sorted; the clasts are matrix-supported in feldspar crystals, finer

volcanic clasts, and mud, which likely represent debris flows. This unit is metamorphosed to greenschist facies, which has obscured primary textures.

The third member is mostly coarse-grained, feldspar-rich volcaniclastic sandstone, with chloritized lithic volcanic fragments and a green chloritic groundmass. This feldspathic greywacke is poorly bedded and sedimentary structures are rare. A 3-5 meter thick, gypsum-bearing unit outcrops within this member, southeast of Fire Mountain. This layer is composed of 40-60% gypsum, and also contains 15% disseminated pyrite. The occurrence of this layer within the Brokenback Hill Formation suggests a seafloor exhalative environment.

The uppermost member of the Brokenback Hill Formation is composed of pyroclastic rocks, including lapilli tuffs and aphanitic felsic, intermediate and compositionally-varied volcanics. The sedimentary rocks at the base of this member grade into the rocks of the underlying member. The volcanics are thought to have been deposited under subaerial conditions.

#### Structure

Three phases of deformation of the Fire Lake Group have been identified. The first deformation is characterized by shallow-angle thrusts which resulted in the superposition of the Peninsula Formation onto the Brokenback Hill Formation. Thrusting resulted in the tight, overturned folds in the hanging wall of the faults. The fault surfaces are characterized by en echelon shear bands, as well as boudinage of sandstone beds. The boudins are rotated, and indicate south-southeast transport.

The second phase of deformation resulted in tight, large-amplitude northwesttrending folds. These folds contain parasitic folds on multiple scales as well as a

penetrative axial cleavage defined by aligned mica. This deformation event is thought to have occurred under greenschist metamorphic conditions. This deformation event also resulted in the Fire Creek Thrust, which traces Fire Creek and the ridge crest of Fire Mountain. This high-angle thrust resulted in the lower Brokenback Hill formation being juxtaposed against the upper stratigraphy of the formation. The fabrics associated with the thrust are ductile, and the rocks have been exposed to high grade metamorphism. Sigmoidal, "c" and "s" fabrics from steeply-dipping shear bands indicate steep-angle, southwest thrusting. Quartz veins are boudinaged and highly deformed along the shear bands. Mineral lineations plunge to the northwest along the foliation, and are consistent with steep angle thrusting with a dextral slip component. Talc schist, with quartz-kyanite segregations, is found in the mapped area, indicating high pressure and temperature conditions during thrusting, implying significant burial.

The third and final major deformation event resulted in steep-dipping, northeaststriking faults, which are regionally extensive. Structures and fabrics within these faults indicate dextral, transcurrent motion. The surface traces of these faults are straight and often marked by physiographic depressions.

#### Mineralization

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A number of different styles of mineralization have been recognized in the Fire Lake Group, including volcanic-exhalative mineralization, stockworks and skarns related to granodiorite, and mesothermal Au-Cu veins associated with high-angle thrust faults.

The Fire Lake Group has been correlated to the Gambier Group, which contains the Britannia volcanogenic massive sulfide orebody. This Kuroko-style deposit contains bedded and brecciated gypsum, similar to pyritic gypsum found in the Brokenback Hill

Formation, and suggests the possibility of similar submarine hydrothermal mineralization in the Fire Lake Group.

The Fire Creek Thrust may have influenced the distribution of Au-Cu veins. The association of high-angle faults and Au-bearing veins is well documented in both Archean and younger Au-vein systems (Sibson, 1989). In the Fire Lake Group, three Au-bearing veins occur in the footwall of the Fire Creek Thrust, northwest of Fire Mountain: the Money Spinner, Barkoola, and Blue Lead veins. These veins were discovered in the 1890s and have been the focus of many exploration programs, including minor mining and underground development.

## Local Geology

The geology mapped during the 2005 program (see Figure 4) is thought to be part of the lower stratigraphy of the Brokenback Hill Formation. This portion of the property geology is dominated by high-angle structural elements, sericitic and silicic alteration, and greenschist metamorphism. Original textures and lithology are often not preserved. Outcrop occurs along the steep slopes and cliffs on the north side of Fire Creek, most notably along a steep promontory that is interpreted as the source of the rusty boulders in the creek near the logging road bridge. Extensive exposure also occurs along the roadcut along the north side of the creek. Exposures on the south side of Fire Creek occur mostly in erosional scarps along the south bank of the creek.

### Lithology

Four distinct lithologies have been identified at the Fire Creek property. The oldest rock type is shale that may include interbedded tuffs. This unit outcrops along the southern boundary of the property. The extent of this unit south of the property is

unknown due to till which covers the bedrock south of the old logging road along the south side of the creek. This bedded unit has an approximate east-west strike and dips to the south.

A sharp contact separates the shale from a quartz muscovite kyanite schist unit. This unit has been referred to by previous workers as a feldspar crystal tuff. However, petrographic work by John Payne of Vancouver Petrographics Ltd. (2005) indicates that feldspar is absent from this rock type and the major minerals present are quartz, muscovite and kyanite. This rock unit is often moderately to strongly foliated, and near major faults or shear zones fractures into rods to produce a lineation. The quartz schist outcrops along the south bank of Fire Creek. It also constitutes the major cliff forming rock-type of the steep promontory on the north side of the creek. Fresh surfaces of this rock type are white, and weathered surfaces are often rusty-red. Disseminated pyrite is present in variable concentrations (up to 15%).

A highly foliated sericite schist unit is found on the north side of the creek, in contact with the quartz muscovite kyanite schist. This white-buff schist is extremely friable, and dominated by sericite and variable amounts of quartz. Trace to no sulfide is present in the sericite schist. Lenses of sericite schist occur within the quartz muscovite kyanite schist on the south side of Fire Creek. These thin lenses, which are exposed on the scarps, are up to 130 meters long, and run parallel to the creek bed.

The geology north of Fire Creek is dominated by andesite, with the exception of the steep promontory. Andesite also outcrops on the south side of the creek, in the southeast quadrant of the map. The andesite is green, fine to medium-grained, and is generally massive. In high-strain zones, such as near faults or shear zones, the andesite

can be highly foliated and easily mistaken for sericite schist in outcrop, due to the similar buff coloured weathered surfaces. A close examination of a fresh surface, which will be green for andesite, is necessary to distinguish the two rock types.

Previous workers have identified a scapolite schist unit on the south side of Fire Creek, directly north of the shale unit. This unit was identified based on the presence of significant amounts of a hard, yellow mineral in a rock that otherwise resembles the quartz muscovite kyanite schist, in terms of composition and texture. Significant amounts of this rock type are found in the talus of the scarps on the south side of the creek. However, this 'scapolite'-rich unit was only observed in outcrop at one location. This rock type has therefore not been differentiated from the quartz muscovite kyanite schist on the property geology map. The presence of scapolite was verified in a thin section of this material however was not specifically correlated with the yellow mineral (see petrographic report in Appendix A for details).

### Structure

The structure of the property is dominated by WNW-ESE trending structural elements and lithologic boundaries. This trend is parallel to Fire Creek and the trace of the Fire Creek Thrust, which runs along the creek bed. Structural measurements of the major foliations in the different rock units have a consistent general orientation that parallels the overall structural WNW-ESE trend. Strongly foliated and altered shear zones, with "c" and "s" fabrics have been identified in outcrop. The foliations in the schists and andesite also general dip to the northeast. The scarps on the south side of Fire Creek may be the exposed surface of the Fire Creek Thrust. Shear zones that run through the property can be traced along negative topographic features, such as stream beds and

recessive depressions in cliffs. The sericite schist and quartz muscovite kyanite schist units are likely in fault contact with the surrounding andesite. This schist package contains high pressure metamorphic minerals and may be an exotic terrain in an andesite host. However, high pressure minerals have also been identified in Fire Lake Group stratigraphy outside the property area (Lynch, 1990). The relationship between the high pressure schists and the andesite remains uncertain. Small andesite lenses (up to 70 meters) are found within the schist units. These lenses may have been entrained in the schists during shearing events.

The numerous WNW-ESE fault traces in the schists and andesite are likely related to the second phase of deformation described by Lynch (1990). A northeast-southwest fault runs through the northwest of the property. This fault has a dextral offset, similar to those described by Lynch (199) and Roddick (1965) that occur during the third and final stage of major deformation.

### Alteration

Alteration is directly associated with the presence of the quartz muscovite kyanite schist and the sericite schist. This alteration zone forms the steep-sided promontory on the north side of Fire Creek and is characterized by both silicic and sericitic alteration, as well as up to 15% pyrite. This alteration zone extends across the creek to the southeast. A similar style of alteration, although not as intense, is exposed in the scarps along the south side of Fire Creek.

Alteration may be a key factor in the determination of rock-type at the Fire Creek property. The quartz muscovite kyanite schist is characterized by medium to strong silicic alteration. The sericite schist is identified by the strong sericitic alteration.

Questions remain as to the timing of the alteration and the relationship between the alteration and the structural history of the property. For example, the sericite schist may be strongly foliated because the high proportion of mica minerals can accommodate tectonic and structural stress to a higher degree than the quartz schist or andesite. However, the high proportion of sericite may be the result of alteration fluids moving through structural elements that pre-existed the sericite-rich host. The alteration and structural elements may in fact be a cogenetic relationship.

Alteration of the andesite appears to be relatively absent, with the exception of pyrite, which can make up to 20% of the rock. The concentration of pyrite appears to be directly related to the proximity of the altered schists. Pyrite mineralization is also common in the quartz muscovite kyanite schist, but is conspicuously absent from the sericite schist.

#### Geochemistry

Results from 155 geochemical analyses are summarized below and reported in full in Appendix C. These results include 102 surface grab and chip samples, 14 samples from core left at the site during the 1987 drill program, and 39 B horizon soil samples from a soil grid on the southeast quadrant of the property. Locations of all samples are shown on Figure 4, with Au, Ba, Cu, Pb and Zn values shown on Figures 5 to 9 respectively. All analyses were completed at International Plasma Labs Ltd., in Vancouver, BC. And included gold by fire assay with an AA finish, 30 element aqua regia digestion ICP, and barium by multi acid digestion ICP. Full details of all analytical techniques used are provided in Appendix B, results are provided in Appendix C, and sample descriptions are provided in Appendix D.

Gold concentrations range from less than the detection limits to 0.87 g/mt in surface samples and 1.58 g/mt in core samples. Elevated gold concentrations (>0.1 g/mt) are associated with the altered quartz muscovite kyanite schists and proximal andesites. A highly sheared section within the altered promontory returned a result of 0.46 g/mt over 7.8 meters, including 0.73 g/mt over 2.3 meters from a series of representative chips. A sample of quartz muscovite kyanite schist within an erosional scarp on the south side of Fire Creek, across from promontory yielded a gold concentration of 0.4 g/mt. Elevated concentrations of silver, as well as copper, zinc and lead are also associated with silica-altered schists. However, there is no apparent correlation between elevated gold and base metal values.

Barium concentrations were measured due to the association of elevated barium levels and volcanogenic massive sulfide-style mineralization. Barium concentrations in rock samples ranged from 31 to 26157 ppm, with an average concentration of 1438 ppm. The highest concentrations are associated with an outcrop containing highly-sheared, silica-altered schists. This location also contains elevated gold concentrations (average of 0.40 g/mt).

Base metal concentrations are variable throughout the property. Copper concentrations range from 4 to 1216 ppm, and average 65 ppm. A high-grade sample from a copper-rich veinlet in andesite along the road cut on the north side of Fire Creek yielded a copper concentration of 6190 ppm. This high-grade copper mineralization was only observed in this one, relatively unaltered location. Lead concentrations range from below detection limits to 330 ppm, with an average concentration of 49 ppm, and zinc concentrations range from below detection limits to 288 ppm, with an average

concentration of 42 ppm. Elevated base metal concentrations are widely and irregularly distributed throughout the property, and show no direct correlation with rock-type or gold occurrences.

A soil grid on the southeast quadrant of the property was put in place to determine the extent of the altered zone on the south side of Fire Creek, where rock outcrops are sparse (see Figure 4). The overall WNW-ESE structural and lithologic trend of the property suggests that the altered zone may extend across the creek to the southeast. Results from the geochemical analyses of the soil samples are presented in Appendix C. The results show no significant anomalous gold or base metal concentrations. The few rock outcrops in the area of the soil grid have strongly anomalous barium concentrations (up to 7259 ppm).

## Conclusions

The Fire Creek property contains a structurally complex assemblage of metamorphosed volcanic and volcaniclastic rocks. A strong WNW-ESE structural fabric dominates the geology of the area. This pervasive structural fabric parallels major faults and shear zones that run through the property and likely control the orientation and position of the major lithologic contacts. Strong silicic and sericitic alteration dominates the schists and has overprinted primary textures of the rocks. Andesites have not been significantly affected by alteration. Silicic alteration is strongly correlated to elevated gold concentrations. Up to 15% pyrite occurs in silicified schists and proximal andesites, but does not correlate with elevated gold concentrations. Questions remain as to the relationship between structural fabrics, alteration and mineralization at Fire Creek, especially in regards to timing of these events, and the controls of the original lithologies.

Surface sampling and subsequent geochemical analyses reveal anomalous gold and base metal concentrations at the property.

Due to the limited amount of drilling at the Fire Creek property, and the fact that a number of previous drilling attempts failed to reach their targets, much of the altered zone remains untested. Drill results from successful holes have indicated the presence of zones with elevated gold concentrations in the subsurface. Further drilling of the altered zone would be required to further delineate the extent of the altered zone and mineralization and evaluate the potential for this zone as a deposit. Drilling of the altered zone on the south side of Fire Creek, which has not yet been tested, could also significantly extend the known area of alteration and gold mineralization.

#### REFERENCES

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# STATEMENT OF EXPENDITURES

Field Personnel: Project geologist (13 days)	\$4,095.00
Geologist (13 days)	\$3,380.00
Field Assistant (6 days)	\$1,500.00
Accommodation & Meals	\$2,400.00
Mob/Demob	\$1,500.00
Air Support (helicopter - 4 hours)	\$3,057.00
Truck Rental	\$2,661.00
Equipment and Supplies	\$2,960.00
Hand held radio rental	\$300.00
Geochemistry (assaying)	\$4,244.00
Contract job (digital orthophoto data purchase)	\$1,632.00
Contract job (petrographic work)	\$960.00
Report Preparation (8 man days + materials)	\$2,300.00
Management (3 man days)	\$945.00
TOTAL	\$31,934.00

## **Certificate of Qualifications**

I, Andrew P. Hamilton, of #14 – 225 West 14<sup>th</sup> Street, North Vancouver, British Columbia, do hereby certify that:

- I am a graduate of the University of British Columbia, with a Bachelor of Science degree in Geology.
- 2. I am registered as a Licensee with the Association of Professional Engineers and Geoscientists of British Columbia,
- 3. I have practiced my profession continuously since graduation.
- 4. I have participated in and supervised the work described herein and participated in the preparation of this report.
- 5. I have direct knowledge of and have confirmed the expenditure made relating to the activities described in this report as outlined in the Statement of Expenditures.

Dated at Vancouver, B.C., this 21 and day of 123, 2006 AMILTON H873

Andrew P. Hamilton, P.Geo.

## **Certificate of Qualifications**

I, John W. Jamieson, of Edmonton, Alberta, do hereby certify that:

- I am a Geologist-in-Training in the Province of Alberta, residing at 8940-117
  Street NW, Edmonton, Alberta, T6G 1R9.
- 2. I am a graduate of the University of Alberta, B.Sc. (Hons), 2002, and the University of Maryland, M.Sc., 2005.
- I have practiced my profession as an exploration geologist continuously since
  2005.
- 4. This report is based on my personal knowledge of the district, and mapping of the geology at the property.

John W. Jamieson, M.I.T.

# APPENDIX A

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# Petrographic Report

#### Report 050789 for

Andrew Hamilton, Cumberland Resources, Ltd., 950 – 505 Burrard Street, Vancouver, B.C. V7X 1M4

November 2005

#### **Project: Fire Creek**

#### Samples: 135273, 135530, 135531, 135550, 87-5

#### **Photographic Notes:**

The scanned sections show the gross textural features of the sections; these features are seen much better on the digital image than on the printed image. Sample numbers are shown in or near the top left of the photos and photo numbers at or near the lower left. The letter in the lower right-hand corner indicates the lighting conditions: P = plane light, X = plane light in crossed nicols, R = reflected light, RP = reflected light and plane light, RX = reflected light (uncrossed nicols) and transmitted light in crossed nicols. Locations of digital photographs (by photo number) are shown on the scanned sections. Descriptions of individual photographs are given at the end of the report.

#### Summary:

The samples show evidence of two major deformation events. The former produced the metamorphic foliate and most of the present minerals. The latter was second shearing event that tightly folded the primary metamorphic foliation (S1) and concentrated muscovite either along a second pervasive foliation (S2) or in seams that cut across the original rock. Some of the muscovite seams were contorted finely. In some samples, quartz was recrystallized after shearing stopped to produce a submosaic to mosaic texture. During the second deformation, some of the kyanite grains were warped and segmented, some of the coarser grained quartz and some of the scapolite grains were strained moderately and recrystallized slightly, and cataclastic seams of extremely fine grained quartz were formed along some of the muscovite-rich seams.

Whether the second deformation is related in origin to the high-angle fault is uncertain. Pyrite probably was introduced before the second deformation event and probably was recrystallized during it.

The presence of kyanite and the abundance of quartz suggest that the original rock was a quartzand clay-rich sedimentary rock. Sample 135273 is a metamorphic foliate dominated by medium to coarse grained quartz that was strained moderately. Muscovite-rich seams contain patches of medium grained scapolite and kyanite, patches of extremely fine grained quartz, and disseminated grains of rutile. The seams show moderate to strong cataclastic deformation textures such as strained and recrystallized quartz, segmented kyanite grains, and warped muscovite seams and scapolite grains.

Sample 135530 is a moderately banded foliate dominated by quartz with bands and patches rich in muscovite and kyanite. Some muscovite seams were contorted moderately to very strongly, whereas quartz generally has a submosaic texture. Kyanite was replaced slightly by muscovite and Mineral X, an unknown, probable clay mineral. Barite occurs in a patch 4 mm across intergrown with lesser quartz.

**Sample 135531** is a banded schist dominated by quartz with moderately abundant muscovite and kyanite and minor pyrite and rutile. Some kyanite grains were warped slightly to moderately.

Sample 135550 is a moderately foliated metamorphic rock dominated by quartz with interstitial barite and minor limonite/jarosite, and scattered grains of kyanite and associated seams of muscovite. A few grains are of a silvery white mineral with high reflectivity, possibly native silver or bismuth.

Sample 87-5 is a banded schist dominated by quartz and muscovite with moderately abundant, disseminated pyrite. Muscovite is concentrated moderately to strongly in bands parallel to a second foliation that produced tight warps in the primary foliation. Less abundant minerals include minor scapolite and rutile, and trace corundum.

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### Sample 135273 Quartz-Scapolite-Muscovite-Kyanite-(Rutile) Foliate

The sample is dominated by medium to coarse grained quartz that was strained moderately. Muscovite-rich seams contain patches of medium grained scapolite and kyanite, patches of extremely fine grained quartz, and disseminated grains of rutile. The seams show moderate to strong cataclastic deformation textures such as strained and recrystallized quartz, segmented kyanite grains, and warped muscovite seams and scapolite grains.

mineral	percentage	main grain size range (mm)		
quartz	80-85%	0.02-0.05; 1.5-3.5 (one grain 8 mm long)		
scapolite	8-10	0.3-0.8		
muscovite	4-5	0.1-0.3		
kyanite	4-5	0.8-2.5		
rutile	0.3	0.03-0.1		

Much of the sample consists of patches of medium to very coarse grained quartz that was strained slightly to moderately. It contains abundant, dusty opaque inclusions, and some grains contain fine twins. Some were recrystallized slightly to moderately to subgrain aggregates with slightly rotated extinction positions. This part of the sample has a pale yellow colour, but the reason for the colour is unknown. Quartz was strained and recrystallized along a few seams and in patches up to a few mm across to much finer, subgrain aggregates.

Muscovite is concentrated in wispy, warped seams up to 0.5 mm wide. Some seams broaden to 2 mm wide and contain elongate grains of kyanite in their cores.

Scapolite forms anhedral grains in patches up to a few mm across, in part associated with muscovite-rich seams and bordering kyanite grains. In some patches, grains were strained slightly to moderately.

Kyanite forms anhedral to subhedral, commonly elongate prismatic grains that are associated with muscovite and concentrated in a few bands parallel to foliation. Many grains are segmental along a basal parting and muscovite and quartz formed in the cracks where the segments were separated.

Rutile forms disseminated, equant grains that are concentrated in muscovite-rich bands and less commonly in patches of scapolite.

#### Sample 135530 Banded Quartz-Kyanite-Muscovite-(Barite) Foliate

The sample is a moderately banded foliate dominated by quartz with bands and patches rich in muscovite and kyanite. Some muscovite seams were contorted moderately to very strongly, whereas quartz generally has a submosaic texture. Kyanite was replaced slightly by muscovite and Mineral X, an unknown, probable clay mineral. Barite occurs in a patch 4 mm across intergrown with lesser quartz.

mineral	percentage	<b>main grain size range (mm)</b> 0.03-0.05; 0.1-0.3		
quartz	83-85%			
kyanite	7-8	0.5-1.5	(a few up to 2 mm)	
muscovite	5-7	0.05-0.3		
barite	2-3	0.1-0.3		
pyrite	0.3	0.01-0.05	(a few up to 0.1 mm)	
rutile	0.1	0.01-0.02		

Much of the rock consists of submosaic aggregates of unoriented quartz grains (0.02-0.05 mm) that contain wispy seams of muscovite and disseminated flakes of muscovite. Many muscovite-rich seams were warped moderately to very strongly on the scale of 0.1-1 mm. These quartz-rich patches grade into slightly coarser grained patches of quartz with slightly to locally moderately sutured grain borders. A few patches and lenses up to 0.5 mm in size are of submosaic quartz grains averaging 0.01 mm in size; some of these probably were recrystallized during cataclastic deformation.

Kyanite forms anhedral, ragged, equant to prismatic grains, mainly associated with larger seams of muscovite and less commonly enclosed in patches of coarser grained quartz that generally are free of muscovite. In places it was replaced slightly by muscovite along grain borders and fractures. At the ends of a few large grains and in several small grains, it was replaced strongly to completely by Mineral X, an isotropic clay(?) material with low relief (R.I. <1.54).

A few irregular seams up to 1.5 mm wide contain moderately abundant to very abundant muscovite flakes intergrown with minor to moderately abundant quartz. Some of these contain abundant, ragged, prismatic grains of kyanite up to 2 mm long.

One patch 4 mm across contains abundant, anhedral barite grains intergrown with lesser quartz. Pyrite forms disseminated, subhedral, equant grains in muscovite and in quartz and is concentrated in clusters up to 0.3 mm in size.

Rutile forms disseminated grains and clusters of grains, mainly associated with muscovite.

#### Sample 135531 Quartz-Muscovite-Kyanite-(Pyrite) Schist

The sample is a banded schist dominated by quartz with moderately abundant muscovite and kyanite and minor pyrite and rutile. Some kyanite grains were warped slightly to moderately.

mineral	percentage	main grain size range (mm)		
quartz	75-80%	0.05-0.1	(locally up to 0.2 mm)	
kyanite	10-12	0.5-1.5		
muscovite	5-7	0.05-0.2		
pyrite	2-3	0.03-0.15		
rutile	0.3	0.03-0.2		

Quartz is concentrated in quartz-rich bands of slightly to moderately interlocking grain borders. A few lenses up to 1 mm long are of much finer grained quartz that may have been granulated and recrystallized during cataclastic deformation.

Kyanite is concentrated in bands and knots up to a few mm across of ragged, prismatic grains, some of which were warped slightly to moderately. Some grains were replaced moderately near their ends by Mineral X (as in Sample 135530) and some were replaced slightly by muscovite.

Muscovite is concentrated in muscovite-rich seams, most of which are less than 0.1 mm wide and is less concentrated in quartz-muscovite bands up to 1 mm wide. A few muscovite-rich seams were warped tightly.

Pyrite forms disseminated, anhedral grains and clusters of similar grains, mainly included in quartz and locally concentrated along margins of kyanite grains.

Rutile forms disseminated anhedral grains and a few rectangular grains up to 0.2 mm in size associate with pyrite and kyanite. One patch 0.4 mm across consists of subparallel, tabular rutile grains intergrown with quartz and muscovite.

One patch (possibly a fragment) 3 mm long consists of finer grained quartz than normal (0.02-0.05 mm) with 3-5% disseminated pyrite grains (0.01-0.04 mm).

A lens (possibly a fragment) 0.7 mm long consists of very fine grained quartz (0.01 mm) with 5% disseminated rutile.

## Sample 135550 Quartz-(Barite-Kyanite-Muscovite-Rutile) Foliate

The sample is a moderately foliated rock dominated by quartz with interstitial barite and minor limonite/jarosite, and scattered grains of kyanite and associated seams of muscovite. A few grains are of a silvery white mineral with high reflectivity, possibly native silver or bismuth.

mineral	percentage	main grain size range (mm)		
quartz	93-95%	0.05-0.2	(a few up to 0.5 mm)	
bari <b>te</b>	4-5	0.05-0.7	(a few up to 1.2 mm)	
kyanite	1	0.3-0.8		
muscovite	0.3	0.05-0.1		
rutile	0.1	0.01-0.02		
limonite/jarosite	0.2	cryptocrysta	lline	
pyrite	trace	0.01-0.03	(a few grains up to 0.05 mm)	
native silver/bisn	nuth (?) trace	0.02-0.03	-	

Quartz forms slightly interlocking, moderately elongate grains that define a moderate foliation. Barite forms interstitial, in part skeletal grains, mainly from 0.3-1 mm in size that enclose quartz grains.

Kyanite forms scattered, anhedral grains, mainly associated with thin seams of muscovite. Some were replaced slightly by patches of quartz and of muscovite.

Muscovite is concentrated strongly in a few discontinuous seams up to 0.15 mm wide.

Rutile forms disseminated grains and clusters of a few to several grains. One patch 1.2 mm across consists of rutile with minor lenses of quartz oriented parallel to foliation. A lens 1.2 mm long consists of slightly finer grained quartz than normal (0.03-0.05 mm) with 5% disseminated rutile grains (0.01-0.03 mm).

Limonite/jarosite forms a few interstitial patches up to 0.2 mm in size.

Mineral Y is a silvery white mineral with high reflectivity that forms a few anhedral grains, in part associated with rutile. The reflectivity is too high for galena, suggesting that the mineral is native silver or bismuth.

#### Sample 87-5 Quartz-Muscovite-(Pyrite) Schist

The rock is a banded schist dominated by quartz and muscovite with moderately abundant, disseminated pyrite. Muscovite is concentrated moderately to strongly in bands parallel to a second foliation that produced tight warps in the primary foliation. Less abundant minerals include minor scapolite and rutile, and trace corundum.

mineral	nineral percentage main grain siz		e range (mm)	
quartz	45-50%	0.05-0.1	(a few up to 0.2 mm)	
muscovite	45-50	0.05-0.3		
pyrite	4-5	0.05-0.3	(a few up to 0.7 mm)	
scapolite	0.2	0.07-0.15		
rutile	0.2	0.005-0.02		
corundum	trace	0.1		

Quartz is concentrated in bands mainly from 0.2-0.5 mm wide that contain minor to moderately abundant muscovite and disseminated pyrite. In several places these bands (S1 foliation) were warped tightly between muscovite-rich bands, mainly from 0.05-0.3 mm wide, that define a second foliation (S2). A few lenses up to 1 mm long are of slightly coarser grained (0.05-0.15 mm) quartz with moderately interlocking grain borders.

Muscovite is concentrated strongly in muscovite-rich bands up to 1.5 mm wide. Locally these bands show internal folding with axial planes subparallel to the plane of the band.

Pyrite forms disseminated grains and trains of grains parallel to foliation in both quartz-rich bands and muscovite-rich bands. It also forms a few porphyroblastic grains up to 0.7 mm across.

Scapolite is concentrated in one lens 1.5 mm long by up to 0.5 mm wide as equant, anhedral grains intergrown coarsely with quartz and lesser pyrite.

Rutile forms disseminated grains and is concentrated moderately in a few lenses up to 0.3 mm in size that contain abundant equant grains intergrown with quartz. It is more abundant in muscovite-rich layers than in quartz-rich layers.

Corundum forms an anhedral, light blue, rectangular grain 0.1 mm long.

List of Photographs			
Photo	o Sample	Description	
01	135273	coarse grained patch of quartz cut by deformed seam containing muscovite, recrystallized extremely fine grained quartz, ragged kyanite grains (segmented with quartz between segments), minor scapolite, and disseminated rutile.	
02 scapo	135273 lite	to left: sheared zone of granulated and recrystallized quartz with lesser	
L		and seams and patches of muscovite; to right: less strongly sheared zone of coarser grained scapolite and quartz with ragged grain of kyanite (along the contact with the more strongly sheared zone), and disseminated rutile grains.	
03	135530	strongly contorted band of muscovite (with minor disseminated rutile) in zone of submosaic quartz with minor disseminated flakes of sericite/muscovite.	
04	135530	patch of barite-quartz with minor muscovite adjacent to a seam of muscovite with a lens of extremely fine grained quartz.	
05	135530	band of kyanite grains (altered strongly in patches to Mineral X in the upper part of the photo, and replaced slightly by muscovite along fractures) intergrown with quartz and much less abundant muscovite.	
06	135531	warped kyanite grain enclosed in quartz aggregate with slightly to moderately interlocking grain borders and minor flakes of muscovite.; several cavities, probably from kyanite plucked from the section during sample preparation.	
07	135531	kyanite grains containing moderately abundant clusters of pyrite and rutile grains and scattered quartz and muscovite grains in a moderately foliated groundmass of quartz with seams and patches of muscovite. Kyanite was altered locally along grain borders to Mineral X.	
08	135550	moderately foliated aggregate of elongate quartz grains with a large patch of rutile (intergrown slightly with quartz) and an irregular, interstitial patch of barite.	
09	135550	quartz with interstitial limonite/jarosite and two patches of rutile and Mineral Y, a silvery white mineral that may be native silver or native bismuth.	
10	135550	kyanite grain (replaced slightly by quartz and muscovite) bordered by clusters of muscovite in a moderately foliated groundmass of quartz with minor interstitial patches of barite.	
11	135550	quartz schist with large, skeletal patch of interstitial barite.	
12	87-5	contorted muscovite-quartz schist; with original foliation (S1) in quartz- (muscovite) bands folded tightly about muscovite-rich bands parallel to S2; minor disseminated pyrite.	
13	87-5	lens of quartz-scapolite-pyrite in muscovite-rich sea; adjacent is finer grained, warped band of quartz with much less muscovite and a lens of coarser grained quartz.	

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# 050789 Cumberland samples

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## APPENDIX B

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## Analytical Methods

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#### Method of Gold analysis by Fire Assay / AAS

(a) 10.00 to 30.00 grams of sample was weighed into a fusion pot which contained a combination of fluxes such as lead oxide, sodium carbonate, borax, silica flour, baking flour or potassium nitrate. After the sample and fluxes had been mixed thoroughly, some silver inquart and a thin layer of borax was added on top.

(b) The sample was then charged into a fire assay furnace at 2000 F for one hour, at this stage, lead oxide would be reduced to elemental lead and slowly sunken down to the bottom of the fusion pot and collected the gold and silver along the way.

(c) After one hour of fusion, the sample was then taken out and pour into a conical cast iron mould, the elemental lead which contained precious metals would stayed at the bottom of the mould and any unwanted materials called slag would floated on top and removed by hammering, a "lead button" is formed.

(d) The lead button was then put back in the furnace onto a preheated cupel for a second stage of separation, at 1650 F, the lead button became liquefied and absorbed by the cupel, but gold and silver which had higher melting points would stayed on top of the cupel.

(e) After 45 minutes of cupellation, the cupel was then taken out and cooled, the dore bead which contained precious metals was then transferred into a test tube and dissolved in hot Aqua Regia solution heated by a hot water bath.

(f) The gold in solution is determined with an Atomic Absorption spectrometer. The gold value, in parts-per-billion, or grams-per-tonne is calculated by comparison with a set of known gold standards.

#### QUALITY CONTROL

Every fusion of 24 pots contains 22 samples, one internal standard or blank, and a random reweigh of one of the samples. Samples with anomalous gold values greater than 1000 ppb are automatically checked by Fire Assay/AA methods. Samples with gold values greater than 10000 ppb are automatically checked by Fire Assay/Gravimetric methods.

#### Method of 30 element analysis by Aqua Regia digestion/ICP

- (a) 0.50 grams of sample is digested with diluted Aqua Regia solution by heating in a hot water bath, at about 95 Celsius for 90 minutes, then cooled and bulked up to a fixed volume with de-mineralized water, and thoroughly mixed. Digested samples are let settled over night to separate residue from solution.
- (b) The specific elements are determined using an Inductively Coupled Argon Plasma spectrophotometer. All elements are corrected for inter-element interference. All data are subsequently stored onto computer diskette.

#### QUALITY CONTROL

The machine is first calibrated using three known standards and a blank. The test samples are then run in batches.

A sample batch consists of 38 or less samples. Two tubes are placed before a set. These are an In-house standard and an acid blank, which are both digested with the samples. A known standard with characteristics best matching the samples is chosen and placed after every fifteenth sample. After every 38th sample (not including standards), two samples, chosen at random, are re-weighed and analyzed. At the end of a batch, the standard and blank used at the beginning is rerun. The readings for these knowns are compared with the pre-rack knowns to detect any calibration drift.

Note: Some elements may not be completely digested by Aqua Regia, Please refer to our price brochure.

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#### Method of Barium analysis by Multi-acid digestion/ICP

- (a) 0.25 to 1.0 grams of sample is weighed accurately and transferred into a teflon beaker, HCl, HNO3, HCLO4 and HF acid solutions are added and digested on hot plate until dryness, re-boil with 80 ml of 10 % HCl for 10 minutes and let cooled, bulked up to a fixed volume with de-mineralized water, and thoroughly mixed.
- (b) The specific elements such as Barium is determined by using an Inductively Coupled Plasma spectrophotometer. An inter-element correction is applied to eliminate any interference from other elements. All data are subsequently stored onto computer diskette.

#### QUALITY CONTROL

The machine is first calibrated using three known standards and a blank. The test samples are then run in batches.

A sample batch consists of 38 or less samples. Two tubes are placed before a set. These are an In-house standard and an acid blank, which are both digested with the samples. A known standard with characteristics best matching the samples is chosen and placed after every fifteenth sample. After every 38th sample (not including standards), two samples, chosen at random, are re-weighed and analyzed. At the end of a batch, the standard and blank used at the beginning is rerun. The readings for these known are compared with the pre-rack known to detect any calibration drift.

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## APPENDIX C

## Assay Certificates

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Sample Name	Туре	Au g/mt	Au g/mt	Ba ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Мо ррл	רז מקק	Bi ppm	Cd ppm	Со ррт	Ni ppm	Ba ppm	W ppm
5000E 4950N 5000E 4975N 5000E 5000N 5000E 5025N 5000E 5050N	Soil Soil Soil Soil Soil Soil	0.01 0.01 0.01 <0.01 <0.01 0.01		563 532 830 1549 605	0.2 0.2 0.2 0.4 <0.1	60 32 10 5 5	8 5 5 16 4	94 91 23 21 10	<5 <5 <5 6 <5	<5 <5 <5 <5 <5	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	5 4 2 1 1	<10 <10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2	15 9 5 1 2	10 4 <1 <1 <1	89 64 204 57 21	<5 <5 <5 <5 <5
5000E 5075N 5000E 5100N 5100E 4900N 5100E 4925N 5100E 4950N	Soil Soil Soil Soil Soil	0.01 <0.01 0.01 <0.01 <0.01		664 378 530 571 504	<0.1 <0.1 <0.1 <0.1 <0.1 0.2	12 28 15 32 32	14 <2 3 <2 3	31 83 50 170 97	<5 <5 <5 <5 <5	<5 <5 <5 <5 <5	<>> <>> <>> <>><>><>><>><>><>><>><>><>><	2 4 5 7 4	<10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2	4 19 11 20 8	3 9 3 9 4	44 50 38 156 72	<ଚ <ଚ <ଚ <ଚ
5100E 4975N 5100E 5000N 5100E 5025N 5100E 5050N 5100E 5050N 5100E 5075N	Soil Soil Soil Soil Soil	<0.01 <0.01 0.01 0.01 <0.01 <0.01	 	942 488 467 553 381	<0.1 <0.1 <0.1 <0.1 <0.1	5 16 78 37 8	4 <2 <2 <2 <2	12 51 122 60 32	<5 <5 <5 <5	<5 <5 <5 <5	<3 <3 <3 <3 <3	2 9 3 1	<10 <10 <10 <10 <10	<2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2	<1 5 12 12 7	<1 <1 5 8 <1	34 48 68 74 57	<5 <5 <5 <5
5100E 5100N 5200E 4875N 5200E 4900N 5200E 4925N 5200E 4950N	Soil Soil Soil Soil Soil	<0.01 0.01 0.01 <0.01 <0.01		501 559 583 614 499	<0.1 <0.1 <0.1 <0.1 <0.1	23 48 31 18 10	<2 <2 5 8 3	53 83 80 92 37	< 5 5 5 5 5 5 5 5	<5 <5 <5 <5	<3 <3 <3 <3 <3	3 4 4 3 2	<10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2	8 11 8 8 5	4 10 <1 6 3	33 94 104 137 73	<5 <5 <5 <5
5200E 4975N 5200E 5000N 5200E 5025N 5200E 5025N 5200E 5050N 5200E 5075N	Soil Soil Soil Soil Soil	0.02 0.01 <0.01 0.01 0.01		459 466 522 544 508	<0.1 <0.1 <0.1 <0.1 <0.1	15 4 31 29 19	8 2 ~2 9 ~2	44 23 77 88 74	<5 <5 <5 <5	<5 <5 <5 <5	<3 <3 <3 <3 <3	3 2 4 3 3	<10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2	6 4 12 14 9	<1 <1 9 3	67 30 73 195 49	<5 <5 <5 <5
5300E 4875N 5300E 4900N 5300E 4925N 5300E 4925N 5300E 4950N 5300E 4975N	Soil Soil Soil Soil Soil	0.01 0.01 <0.01 0.02 0.01		485 549 926 602 501	<0.1 <0.1 <0.1 <0.1 <0.1	50 8 21 16 32	<2 <2 <2 3 <2	122 59 90 122 63	<5 <5 <5 <5	<5 <5 <5 <5 <5	<3 <3 <3 <3 <3	4 2 6 3 4	<10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2	15 5 4 9 11	7 3 <1 7 6	99 45 77 144 61	< ა < ა < ა < ა < ა < ა < ა
5300E 5000N 5300E 5025N 5300E 5050N 5400E 4900N 5400E 4925N	Soil Soil Soil Soil Soil	<0.01 0.01 0.01 0.01 <0.01		497 585 735 501 515	<0.1 <0.1 <0.1 <0.1 <0.1	17 21 7 17 35	4 <2 <2 <2	76 69 58 181 92	< ఫళళళ ళళళ ళ	<5 <5 <5 <5 <5	<3 <3 <3 <3 <3	2 3 3 3 3	<10 <10 <10 <10 <10	<2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2	9 7 9 18 11	5 4 <1 6 7	51 57 26 59 65	<5 <5 <5 <5 <5
5400E 4950N 5400E 4975N 5400E 5000N 5400E 5025N	Soil Soil Soil Soil	0.01 <0.01 <0.01 <0.01	  	508 554 502 742	<0.1 <0.1 <0.1 <0.1	23 9 7 7	<2 <2 4 <2	67 45 28 59	<5 <5 <5 <5	<5 <5 <5	<3 <3 <3 <3	4 2 3	<10 <10 <10 <10	<2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2	10 6 4 9	6 3 3 5	40 30 22 46	<5 <5 <5 <5
L Minimum Detection Maximum Detection Method — No Test Insympatificien	it Sample Del=Delay	0.01 5000.00 5 FA/AAS / Max=No Esti	0.07 000.00 FAGrav A mate Rec-	10 10000 1 isyMuA *ReCheck	0.1 100.0 ICP	1 10000 1 ICP 00 %=Fs	2 0000 1 ICP	1 10000 1 1CP 6 NS=N	5 10000 1CP	5 2000 1 ICP	3 10000 ICP	1 1000 ICP	10 1000 ICP	2 2000 ICP	0.2 2000.0 ICP	1 10000 ICP	1 10000 ICP	2 10000 ICP	5 1000 ICP

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Client : Cumberland Reso Project: Fire Creek	ompani Aurces Ltd. Si	hip#FC-3	39 3 3	Samp 9=Soil	les 2=Rej	peat	1=Bikj	iPL 1	l=Std iPL	[2004	13:53:49	:6002100	6:002]	Print: F In: S	eb 10. 2006 ep 14. 2005	Page Section	1 of 2 1 2 of 2
Sample Name	Cr ppm	۷ هرو	Min ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti ž	A1 *	Ca ¥	Fe X	Mg X	K 4	Na %	P X		
5000E 4950N 5000E 4975N 5000E 5000N 5000E 5025N 5000E 5025N	14 13 6 2 4	61 49 42 26 27	573 546 166 87 68	4 4 3 <2 3	21 13 21 5 13	2 2 <1 <1 <1	4 2 2 <1 <1	0.10 0.06 0.08 0.01 0.07	2.51 2.52 1.14 0.67 0.54	0.27 0.16 0.19 0.02 0.17	3.37 2.82 1.46 0.70 0.64	0.88 0.38 0.34 0.17 0.08	0.06 0.04 0.04 0.03 0.02	0.04 0.03 0.03 0.03 0.03	0.08 0.13 0.03 0.02 0.01	· · · · ·	
5000E 5075N 5000E 5100N 5100E 4900N 5100E 4925N 5100E 4925N 5100E 4950N	6 10 11 16 12	44 143 74 91 64	115 383 331 287 267	3 <2 3 · 4 3	11 12 17 17 10	2 3 <1 2 2	1 1 2 2 2	0.06 0.20 0.12 0.17 0.10	1.11 2.76 1.36 2.43 2.00	0.12 0.13 0.24 0.25 0.10	1.79 4.87 2.66 3.98 3.20	0.22 1.26 0.48 0.52 0.49	0.03 0.03 0.04 0.04 0.03	0.03 0.03 0.03 0.03 0.03 0.04	0.04 0.05 0.02 0.06 0.13		
5100E 4975N 5100E 5000N 5100E 5025N 5100E 5050N 5100E 5075N	2 8 17 15 12	18 43 69 65 66	85 176 281 1297 1441	<2 3 4 3 3	4 13 14 18 12	<1 1 8 1 <1	<1 2 3 1	<0.01 0.09 0.13 0.10 0.10	0,54 1,40 4,03 2,02 0,81	0.04 0.14 0.18 0.22 0.19	0.82 1.76 5.22 3.05 1.73	0.14 0.30 0.39 0.70 0.23	0.02 0.03 0.04 0.07 0.03	0.03 0.03 0.03 0.04 0.04	0.01 0.04 0.08 0.12 0.01		
5100E 5100N 5200E 4875N 5200E 4900N 5200E 4925N 5200E 4925N 5200E 4950N	11 15 13 13 9	59 66 55 53 44	273 414 518 454 212	3 3 3 3 3	9 13 14 12 11	2 1 3 1	1 2 2 2 1	0.09 0.10 0.05 0.08 0.07	2.15 2.22 1.96 2.23 1.03	0.08 0.15 0.11 0.12 0.13	2.70 3.33 2.93 2.81 1.78	0.54 0.66 0.80 0.52 0.34	0.02 0.05 0.04 0.04 0.03	0.03 0.04 0.03 0.03 0.03	0.03 0.07 0.12 0.12 0.02		
5200E 4975N 5200E 5000N 5200E 5025N 5200E 5050N 5200E 5075N	11 6 16 22 12	48 32 62 60 60	335 140 438 5071 399	4 3 4 3 3	13 11 20 59 16	1 <1 2 <1 1	2 1 3 2 2	0.07 0.06 0.10 0.06 0.07	1,63 0.76 2.26 1.91 1.67	0.13 0.12 0.24 0.87 0.18	2.28 1.27 3.29 3.06 2.86	0.34 0.27 0.75 0.83 0.63	0.05 0.02 0.06 0.06 0.04	0.03 0.03 0.05 0.04 0.03	0.21 0.03 0.11 0.11 0.10		
5300E 4875N 5300E 4900N 5300E 4925N 5300E 4950N 5300E 4950N 5300E 4975N	15 9 9 12 18	69 53 45 49 63	1601 625 491 2012 1082	5 2 5 4 4	13 7 8 11 12	1 <1 1 2 2	2 1 1 2 2	0.09 0.03 0.01 0.08 0.12	1.77 1.65 2.13 1.74 2.68	0.13 0.08 0.05 0.12 0.12	3.66 2.53 3.97 2.50 3.04	0.64 1.04 0.85 0.42 0.58	0,03 0.02 0.03 0.05 0.04	0.03 0.02 0.02 0.04 0.03	0.10 0.08 0.09 0.15 0.10		
5300E 5000N 5300E 5025N 5300E 5050N 5400E 4900N 5400E 4925N	12 10 4 11 16	50 50 37 64 71	471 255 213 1570 691	4 6 2 2 2	14 14 11 12 13	2 3 <1 1 2	2 <1 2 2 2	0.09 0.08 0.07 0.09 0.08	2.20 2.29 1.53 2.28 2.25	0.16 0.12 0.10 0.12 0.14	2.47 2.50 1.99 3.59 2.99	0.49 0.46 0.95 1.54 0.69	0.04 0.03 0.03 0.04 0.03	0.03 0.03 0.03 0.03 0.03	0.08 0.11 0.02 0.07 0.10		
5400E 4950N 5400E 4975N 5400E 6000N 5400E 5025N	15 8 7 11	62 42 35 42	251 305 158 295	4 <2 3 <2	10 6 28	4 1 1 <1	2 1 <1 1	0.10 0.05 0.06 0.08	2.62 1.54 0.96 1.39	0.11 0.07 0.07 0.19	2.84 1.88 1.39 1.87	0.44 0.60 0.27 1.08	0.03 0.02 0.02 0.04	0.03 0.03 0.03 0.03	0.06 0.05 0.02 0.03		
Minimum Detection Maximum Detection Method	1 10000 ICP	1 10000 ICP	1 10000 ICP	2 10000 ICP	1 10000 ICP	1 10000 ICP	1 10000 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0,01 10.00 ICP	0.01 10.00 ICP	0.01 5.00 ICP		

----=No Test Ins=Insufficient Sample Del+Delay Max+No Estimate Rec=ReCheck in=x1000 %=Estimate % NS=No Sample



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13826 Haseoshor Way Richmond, B.C. Canada V.74 4V3 Phone (604) 879 7878 Fax (604) 879 7898 Website www.ipt.ca

isc 90012000 CENTRIED Client : Cumberland Res Project: Fire Creek	COMFANY OUTCES Ltd. Ship#FC	<b>39 S</b> -3 39	Sample Soil	s 2=Repeat	tl=	Bìk iPL	1=5	td iPL	[2004	13:53:4	49:60021	006:002]	Pri:	nt: Feb In: Sep	10. 2006 14, 2005		Page Section	2 of 1 1 of	2
Sample Name	Туре	Au g/mt	Au g/mt	Ba ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo	T} ppm	Bi ppm	Cd ppm	Со ррт	Ni ppm	Ba ppm	₩ ppm
RE 5000E 4950N RE 5200E 4950N Blank iPL FA GS18 FA GS18 REF	Repeat Repeat Blk iPL Std iPL Std iPL	0.01 <0.01 <0.01 1.04 1.02	 1.02	557 508 	0.2	60 10 	8 4	96 40 	<5 <5 (	<5 <5 —	<3 <3 — —	5 2 —	<10 <10 	<2 <2 	<0.2	16 7 	6 4 	89 76 —	~~~   ~~   
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ICP

FA/AAS FAGrav AsyMuA ICP ICP ICP ICP ICP

---=No Test Institucent Sample Del=Delay Max=No Estimate Rec=ReCluck m=x1000 %=Estimate % NS=No Sample



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Hosto Husnobice Way Bichmond, B.C. Canada V7A 499, Phone (604) 879-7855 Hax (604) 879-7855 Hax (604) 879-7855 Website, www.spt.ca

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lient : Cumberland F roject: Fire Creek	Resources	Ltd. Shi	ip#FC+3	39 S 39	Sample Sati	es 2≖Rep	eat	1=81k i	IPL 1:	Std iPL	[2004]	13:53:49;	60021006	5:002]	Print: F In: S	eb 10, 2006 ep 14, 2005	Page 2 of Section 2 of
Sample Name		Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti X	A1 *	Ca %	Fe X	Mg %	K لا	Na ¥	р Х	
E 5000E 4950N E 5200E 4950N Mank iPL A GS1B		14 10	62 49 —	585 247	5	24 17 	2 2	4 2	0.12 0.10	2.58 1.03 —	0.31 0.15	3.42 1.82	0.90 0.39 	0.08 0.04	0.05 0.04 —	0.08 0.03 	· .
GS1B REF			_	-					_		. —	_		:	_		
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nimum Detection	<del>.</del> ,.,	1	1	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
thod		10000 l	LUUUUU 1 ICP	0000 1 ICP	1 1000 UU00 I ICP	0000 1 ICP	0000 ICP	10000 ICP	10.00 ICP	10.00 ICP	10.00 ICP	10.00 ICP	10.00 ICP	10.00 ICP	10.00 ICP	5.00 ICP	

--No Fest Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

		C	ERTIFI	CATE OF ANALYSIS iPL 0511993	. 1	1102011 Hichrone Cenada Phone (C Fax of	20063500-Way 86.12.C V7A-4V3 993-879-7678 994-879-7678 394-879-7898
Cumberland Resources Ltd.		14	Sample	s	2005	[199313:5	www.sphea 3:31:60021006:0021
Project : Fire Creek Shipper : Andrew Hamilton Shipment: FC-4 PO#: Comment:	82 88 88 89	CODE         AMOUNT           2100         14           4100         1           42101         1           40010         1	TYPE Core Repeat B1k iPL Std iPL	PREPARATION DESCRIPTION Crush. split & pulverize to -150 Mesh. Repeat sample - no Charge Blank iPL - no charge. Std iPL(Au Certified) - no charge	NS=No Samole	Ren=Renlicate M=1	PULP REJECT 12M/Dis 03M/Dis 12M/Dis 00M/Dis 00M/Dis 00M/Dis
		Analytical Analysis: 1C	Summar P(AqR)30	Y Ba(MuAc) / Au(FA/AAS 30) Au(FA/Grav	)Au>1.0g/mt		
Document Distribution		Code Method	Units	Description	Element	Limit	Limit Hich
950 - 5015 Burnard St. Box 72     1       Vancouver.     DI       BC     V7X 1M4       Canada     Att: Andrew Hamilton	L 2 1 0 1 01 3D EM BT BL 02 0 1 0 03 04 604/608-2557 05	0368 FA/AAS 0364 FAGrav 0503 AsyMuA 0721 ICP 0711 ICP	g/mt g/mt ppm ppm ppm	Au (FA/AAS 30g) g/mt Au FA/Grav in g/mt Ba Multi Acid/AAS Ag ICP Cu ICP	Gold Gold Barium Silver Copper	0.01 0.07 10 0.1	5000.00 5000.00 10000 100.0 100.0
Fx: Em:ahamilton@cumberlandr 2 Cumberland Resources Ltd. EN 950 - 505 Burrard St. Box 72 1 Vancouver DL BC V7X 184	:604/608-2559 resources.com 06 07 N RT CC IN FX 08 L 2 1 0 0 09 2 30 EM BT BL 10 0 0 1	0714 ICP 0730 ICP 0703 ICP 0702 ICP 0732 ICP	ppm ppm ppm ppm	Pb ICP Zn ICP As ICP Sb ICP Hg ICP	Lead Zinc Arsenic Antimony Mercury	2 1 5 3	10000 10000 10000 2000 10000
Canada Att: Kerry Curtis Ph: Fx: Em:kcurtis@cumberlandr	11 604/608-2557 12 604/608-2559 13 resources.com 14 15	0717 1CP 0747 1CP 0705 1CP 0707 ICP 0707 ICP 0710 ICP	nnqq ppm ppm ppm ppm	Mo ICP Tl ICP (Incomplete Digestion) Bi ICP Cd ICP Co ICP	Molydenum Thallium Bísmuth Cadmium Cobalt	1 10 2 0.2 1	1000 1000 2000 2000,0 10000
3 Cumberland Resources Ltd.       E         0       0         0       0         1       6         1       4	N RT CC IN FX 0 0 0 0 0 16 3D EM BT BL 17 0 1 0 0 18 19 :604/881-6736 20	0718 ICP 0704 ICP 0727 ICP 0709 ICP 0729 ICP	ppm ppm ppm ppm	Ni ICP Ba ICP (Incomplete Digestion) W ICP (Incomplete Digestion) Cr ICP (Incomplete Digestion) V ICP (Incomplete Digestion)	Nickel Barium Tungsten Chromium Vanadium	1 2 5 1	10000 10000 1000 10000 10000
Fx: Em:rmarch@cumberlandr 4 Cumberland Resources Ltd. EM 0 DL	604/881-8372 resources.com 21 22 N RT CC IN FX 23 0 0 0 0 24 30 EM BT BL 25 0 0 0	0716 ICP 0713 ICP 0723 ICP 0731 ICP 0736 ICP	ppm ppm ppm ppm ppm	Mn ICP La ICP (Incomplete Digestion) Sr ICP (Incomplete Digestion) Zr ICP (Incomplete Digestion) Sc ICP	Manganese Lanthanum Strontium Zirconium Scandium	1 2 1 1 1	10000 10000 10000 10000 10000
Att: Gordon Davidson Ph:604-8 Fx:604-881-8372 Em:gdavidson@cumberlandresources.com	881-6736 26 27 28 29 30	0726 ICP 0701 ICP 0708 ICP 0712 ICP 0715 ICP	* * * * * *	Ti ICP (Incomplete Digestion) Al ICP (Incomplete Digestion) Ca ICP (Incomplete Digestion) Fe ICP (Incomplete Digestion) Mg ICP (Incomplete Digestion)	Titanium Aluminum Calcium Iron Magnesium	0.01 0.01 0.01 0.01 0.01	10.00 10.00 10.00 10.00 10.00 10.00
	31 32 33	0720 ICP 0722 ICP 0719 ICP	X % X	<pre>K ICP (Incomplete Digestion) Na ICP (Incomplete Digestion) P ICP</pre>	Potassium Sodium Phosphorus	0.01 0.01 0.01	10.00 10.00 5.00

EN-Envelope # RT=Report Style CC=Copies IN=Invoices Fx=Fax(I=Yes 0=No) Totals: 2=Copy 0=Invoice 0=3½ Disk DL=Download 3D=3½ Disk EM=E-Mail BT=BBS Type BL=BBS(I=Yes 0=No) 1D=C034106020703 \* Our liability is limited solely to the analytical cost of these analyses.

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ISO 9001 2000 CENTIFIED C	ompany ources Ltd,	14	Sample	S									Pri	: nt: Feb	10, 2006	Webs	Page	otea 1of	1
roject: Fire Creek	Ship#FC-4	} ]	4=Core	1=Repeat	1=B	Ik iPL	]=\$	std iPL	[1993	13:53:3	1:60021	006:002]		In: Sep	14, 2005		Section	1 of	2
Sample Name	Туре	Au g/mt	Au g/mt	Ba ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Мо ррт	T1 ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ва ррт	W ppm
135565 135566 135567 135568 135568 135569	Core Core Core Core Core	0.10 0.19 0.57 0.52 1.58	1,62	1119 721 100 113 79	0.4 0.6 1.2 0.8 9.8	41 96 444 267 721	<2 <2 <2 <2 192	5 25 7 6 23	11 11 167 100 408	<5 <5 6 7 44	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4 6 5 5 12	<10 <10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2	17 19 19 19 13	5 4 -4 5 <1	30 26 27 30 49	<5 <5 <5 <5 <5
35570 35571 35572 35573 35573 35574	Core Core Core Core Core	0,12 0,33 0,41 0,16 0,15		678 170 785 809 1800	0.8 1.2 4.0 1.0 1.4	84 201 435 33 114	215 39 256 <2 70	7 32 1176 54 155	23 83 130 37 46	<5 10 <5 5 5	<3 <3 <3 <3 <3	5 10 6 3 2	<10 <10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2	16 27 17 3 8	6 3 6 5 <1	31 21 25 370 55	<5 <5 <5 <5
135575 135576 135577 135578 RE 135565	Core Core Core Core Repeat	0.82 0.11 0.06 0.03 0.10		98 1585 3169 1123 1148	2.0 0.6 0.4 0.2 0.4	703 99 69 31 43	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	24 9 94 57 5	271 42 <5 <5 9	* 37 9 <5 <5 <5	2 2 2 2 2 2 2 2 2	9 2 4 1 4	<10 <10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2	25 3 13 4 16	7 6 <1 <1 6	33 75 88 79 30	<5 <5 <5 <5
Blank iPL FA_GS1B FA_GS1B_REF	Blk iPL Std iPL Std iPL	<0.01 1.04 1.02	1.02		-					-						 			
inimum Detection		0.01	0.07	10	 0.1	1	2	1		5	3	1	10	2	0.2	1		2	

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Elehmond, B.C. Canada V7A 4V5 Phone (664) 279-7878 Fex (604) 879-7896 Minhomics is some fast o

V Mn ppm ppm 5 11 31 203 5 13 3 13 7 11 10 14 7 10 15 687 15 143 7 87 5 11 2 17 33 1705 4 341 5 11 	La ppm <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <	Sr ppm 13 23 75 83 33 1223 36 11 25 10 51 7 20 77 15	Zr ppm 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Sc ppm v1 2 v1 2 v1 v1 v1 v1 v1 v1 v1 v1 v1 v1 v1 v1 v1 v1 v1 v1 v	Ti x <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0	A1 x 0.13 0.73 0.09 0.09 0.11 0.45 0.17 0.89 0.55 0.38 0.15 0.07 2.63 0.63	Ca % <0.01 0.05 0.02 <0.01 0.08 0.06 0.03 0.44 0.08 0.01 0.02 0.02 0.02 0.42	Fe x 2.88 4.28 6.79 6.80 16x 5.03 7.10 4.99 1.61 1.85 7.68 1.49 3.79	Mg * <0.01 0.50 0.01 <0.01 <0.01 <0.01 0.03 <0.01 1.14 0.43 0.33 0.01 0.01 2.56	K 3 0.05 0.05 0.03 0.02 0.04 0.06 0.06 0.18 0.05 0.10 0.03 0.02	Na * 0.02 0.03 0.02 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03	P % <0.01 0.01 <0.01 <0.01 <0.01 0.15 <0.01 0.03 0.01 <0.01 <0.01 <0.01 <0.01		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	<2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <	13 23 75 83 33 1223 36 11 25 10 51 7 20 77 15	1 1 1 2 1 1 2 1 1 1 1 2 1 2 1 1		<pre>&lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01</pre>	0.13 0.73 0.09 0.09 0.11 0.45 0.17 0.89 0.55 0.38 0.15 0.07 2.63 0.63	<0.01 0.05 0.02 <0.01 0.08 0.06 0.03 0.44 0.08 0.01 0.02 0.02 0.02 0.42	2.88 4.28 6.79 6.80 16% 5.03 7.10 4.99 1.61 1.85 7.68 1.49 3.79	<0.01 0.50 0.01 <0.01 <0.01 <0.03 <0.01 1.14 0.43 0.33 0.01 0.01 2.56	0.05 0.03 0.02 0.04 0.06 0.06 0.18 0.05 0.10 0.03 0.02	0.02 0.03 0.02 0.03 0.03 0.03 0.03 0.04 0.03 0.02 0.03 0.03 0.03	<pre>&lt;0.01 0.01 &lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 0.15 &lt;0.01 0.03 0.01 &lt;0.01 &lt;0.01 &lt;0.01</pre>		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	7 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2	1223 36 11 25 10 51 7 20 77 15	1 1 1 1 1 1 2 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 2 1 2 1 2 1 2 1 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1		<0.01 <0.01 0.03 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01	0.45 0.17 0.89 0.55 0.38 0.15 0.07 2.63 0.63	0.06 0.03 0.44 0.08 0.01 0.02 0.02 0.42	5.03 7.10 4.99 1.61 1.85 7.68 1.49 3.79	0.03 <0.01 1.14 0.43 0.33 0.01 0.01 2.56	0.06 0.06 0.18 0.05 0.10 0.03 0.02	0.03 0.04 0.03 0.02 0.03 0.03 0.03	0.15 <0.01 0.03 0.01 <0.01 <0.01 <0.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	<2 <2 <2 4 2 4 2	51 7 20 77 15	1 <1 2 <1 1	<1 <1 2 <1 <1	<0.01 <0.01 <0.01 <0.01	0.15 0.07 2.63 0.63	0.02 0.02 0.42	7.68 1.49 3.79	0.01 0.01 2.56	0.03	0.03	<0.01 <0.01		
					-0.01	0.13	2.54 <0.01	0.91 2.80	0.35 <0.01	$0.09 \\ 0.10 \\ 0.05$	0.04 0.07 0.03	0.03 0.04 <0.01		
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150 9051 2050 CENTRIED COMPANY Cumberland Resources Ltd.			87	Sample	S Print: Feb 10, 2006 In: Sep 14	2005	(Webs	ite www.ipa.cz	1006-0027
Project : Fire Creek Shipper : Andrew Hamilton Shipment: FC-2 PO#: Comment:	82 88 88 89	CODE AN 1100 34100 32101 90010	MOUNT 87 5 1 E 1 S	TYPE Rock Repeat 31k_iPL 5td_iPL	PREPARATION DESCRIPTION crush, split & pulverize to -150 mesh. Repeat sample - no Charge Blank iPL - no charge. Std iPL(Au Certified) - no charge			PULP 12M/Dis 12M/Dis 00M/Dis	REJECT 03M/Dis 00M/Dis 00M/Dis
	 	Analyt Analysi	tical S	ummar AgR)30	V	NS=No Sample	Rep=Replicate	M=Month Dis	=Discard
Document Distribution		Code Me	ethod	Units	Description	Flement	l imi	t limit	
1 Cumberland Resources Ltd.       EN         950 - 505 Burrard St. Box 72       1         Vancouver.       DL         BC       V7X 1M4       0         Canada       Att: Andrew Hamilton       Ph:0	RT CC IN FX 2 1 0 1 01 3D EM 8T BL 02 0 1 0 0 03 04 604/608-2557 05	0368 FA 0503 As 0721 0711 0714	A/AAS syMuA ICP ICP ICP	g/mt ppm ppm ppm ppm	Au (FA/AAS 30g) g/mt Ba Multi Acid/AAS Ag ICP Cu ICP Pb ICP	Gold Barium Silver Copper Lead	Lo Lo 0.0 1 0.	W High 1 5000.00 0 10000 1 100.0 1 10000 2 10000	
Em:ahamilton@cumberlandro Em:ahamilton@cumberlandro 2 Cumberland Resources Ltd. EN 950 - 505 Burrard St. Box 72 1 Vancouver DL BC W27 1M4 0	604/608-2559 esources.com 06 07 RT CC IN FX 08 2 1 0 0 09 3D EM BT 8L 10 0 1 0 0	0730 0703 0702 0732 0717	ICP ICP ICP ICP ICP	ppm ppm ppm ppm	Zn ICP As ICP Sb ICP Hg ICP Mo ICP	Zinc Arsenic Antimony Mercury Molydenum		1 10000 5 10000 5 2000 3 10000 1 1000	Ì
Canada Att: Kerry Curtis Fx:1 Em:kcurtis@cumberlandro	11 604/608-2557 12 604/608-2559 13 esources.com 14 15	0747 0705 0707 0710 0718	ICP ICP ICP ICP ICP	ррт ррт ррт ррт ррт	T) ICP (Incomplete Digestion) Bi ICP Cd ICP Co ICP Ni ICP	Thallium Bismuth Cadmium Cobalt Nickel	1	0 1000 2 2000 2 2000.0 1 10000 1 10000	i
Att: Roger March Ph:	RT CC IN FX 0 0 0 0 16 3D EM BT 8L 17 0 1 0 0 18 19 604/881-6736 20	0704 0727 0709 0729 0716	ICP ICP ICP ICP ICP	ррт ррт ррт ррт , ррт	Ba ICP (Incomplete Digestion) W ICP (Incomplete Digestion) Cr ICP (Incomplete Digestion) V ICP (Incomplete Digestion) Mn ICP	Barium Tungsten Chromium Vanadium Manganese		2 10000 5 1000 1 10000 1 10000 1 10000	:   
Em:rmarch@cumberlandrd 4 Cumberland Resources Ltd. EN 0 DL	esources.com 21 22 RT CC IN FX 23 0 0 0 0 24 3D EM BT BL 25	0713 0723 0731 0736 0726	ICP ICP ICP ICP ICP	ppm ppm ppm ppm <b>x</b>	La ICP (Incomplete Digestion) Sr ICP (Incomplete Digestion) Zr ICP (Incomplete Digestion) Sc ICP Ti ICP (Incomplete Digestion)	Lanthanum Strontium Zirconium Scandium Titanium	0.0	2 10000 1 10000 1 10000 1 10000 1 10000 1 10.00	1
0 Att: Gordon Davidson Ph:604-8 Fx:604-881-8372 Em:gdavidson@cumberlandresources.com	0 1 0 0 26 181-6736 27 28 29 30	0701 0708 0712 0715 0720	ICP ICP ICP ICP ICP	おおやみ	Al ICP (Incomplete Digestion) Ca ICP (Incomplete Digestion) Fe ICP (Incomplete Digestion) Mg ICP (Incomplete Digestion) K ICP (Incomplete Digestion)	Aluminum Calcium Iron Magnesium Potassium	0.0 0.0 0.0 0.0 0.0	1 10.00 1 10.00 1 10.00 1 10.00 1 10.00 1 10.00	
	31  32	0722 0719	ICP ICP	**	Na ICP (Incomplete Digestion) P ICP	Sodium Phosphorus	0.0 0.0	$1 10.00 \\ 1 5.00$	

EN=Envelope # RT=Report Style CC=Copies IN=Invoices Fx=Fax(1=Yes 0=No) Totals: 2=Copy 0=Invoice 0=3½ Disk DL=Download 3D=3½ Disk EM=E-Mail BT-BBS Type BL=BBS(1=Yes 0=No) 1D=C034106020703 \* Our fiability is limited solely to the analytical cost of these analyses.



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11620 Hon egine Way Richmanil, B.C. Canada V7A 4V1, Phone (601) 879-2878 Fax (604) 879-2898 Website www.jut.ca

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INTERNATIONAL PLASMA	LABS LTD. COMPANY																Nebsite :	www.jb₽) www.jb₽)	r 8995 58
Client : Cumberland Res Project: Fire Creek	sources Ltd. St	nip#FC-2	87=Rock	les 5=Re	peat	1=81k i	iPL :	l=Std iF	PL [19	9213:53	3:13:60	021006:	:003]	Print: F In: S	eb 10. ep 14.	2006 2005	Pa Se	ge ction	1 of 3 1 of 2
Sample Name	Туре	Au g/mt	Ba ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	T1 ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm
135251	Rock	0.01	107	0.2	18	<2	8	7	<5	<3	1	<10	<2	<0.2	<1	<1	29	<5	96
135252	Rock	0.19	2875	1.2	10	147	· 1	8	<5	<3	2	<10	<2	<0.2	2	<1	169	<5	58
135253	Rock	0.22	5578	0.4	11	8	2	<5	<5	<3	2	<10	<2	<0.2	1	<1	183	<5	65
135254	Rock	0.11	1384	0.6	22	42	32	81	<5	<3	2	<10	<2	<0.2	4	<1	56	<5	34
135255	Rock	0.30	412	<0.1	20	<2	50	34	<5	<3	3	<10	<2	<0.2	7	<1	34	<5	29
135256	Rock	<0.01	558	<0.1	36	<2	102	282	<5	<3	4	<10	<2	<0.2	14	24	50	<5	37
135257	Rock	0.02	443	0.2	28	<2	1	. 24	<5	<3	2	<10	<2	<0.2	3	2	64	<5	77
135258	Rock	0.08	1693	0.4	21	<2	157	42	<5	<3	3	<10	<2	<0.2	2	<1	86	<5	19
135259	Rock	0.05	942	0.2	50	<2	86	<5	<5	<3	3	<10	<2	<0.2	22	40	51	<5	33
135260	Rock	0.06	. 2120	1.9	14	166	11	49	<5	<3	2	<10	<2	<0.2	3	<1	66	<5	22
135261	Rock	0.11	1753	1.4	13	79	67	42	<5	<3	2	<10	<2	<0.2	5	<1	59	<5	36
135262	Rock	0.08	3749	4.4	6	330	84	27	<5	<3	1	<10	<2	<0.2	1	<1	129	<5	29
135263	Rock	0.11	362	0.4	53	<2	288	<5	<5	<3	2	<10	<2	<0.2	16	4	22	<5	40
135264	Rock	0.01	821	0.4	303	<2	82	<5	<5	<3	2	<10	<2	<0.2	22	6	56	<5	23
135265	Rock	0.06	487	6.6	6190	<2	65	<5	<5	<3	3	<10	<2	<0.2	13	7	32	<5	43
135266	Rock	0.04	1018	0.2	151	<2	2	34	<5	<3	2	<10	· <2	<0.2	9	4	12	<5	74
135267	Rock	0.02	623	0.4	99	<2	1	42	<5	<3	3	<10	<2	<0.2	10	3	10	<5	52
135268	Rock	0.14	135	0.2	21	<2	9	9	<5	<3	1	<10	<2	<0.2	3	4	82	<5	97
135269	Rock	0.01	1006	0.2	26	<2	43 ·	12	<5	<3	2	<10	<2	<0.2	13	5	25	<5	21
135270	Rock	<0.01	141	0.2	7	<2	238	<5	<5	<3	3	<10	<2	<0.2	10	8	28	<5	44
135271	Rock	<0.01	1010	0.4	21	15	2	15	<5	<3	4	<10	<2	<0.2	7	3	59	<5	53
135272	Rock	0.02	531	<0.1	10	<2	28	6	<5	<3	3	<10	<2	<0.2	4	<]	38	<5	47
135273	Rock	0.02	328	<0.1	6	<2	<1	9	<5	<3	2	<10	<2	<0.2	<1	2	97	<5	95
135274	Rock	0.30	341	0.4	12	<2	1	25	5	<3	3	<10	<2	<0.2	<1	4	336	<5	105
135275	Rock	0.26	4075	0.6	31	<2	2	35	<5	<3	5	<10	<2	<0.2	1	<1	752	<5	88
135276	Rock	0.28	4634	0.8	31	<2	1	81	9	<3	3	<10	<2	<0.2	1	<1	1466	<5	94
135277	Rock	0.54	1224	0.6	30	<2	3	117	23	<3	5	<10	<2	<0.2	2	<1	967	<5	87
135278	Rock	0.10	5364	0.4	8	5	<1	14	<5	<3	3	<10	<2	<0.2	1	2	496	- <5	104
135279	Rock '	0.03	48	0.4	16	<2	117	<5	<5	<3	4	<10	<2	<0.2	26	<1	20	<5	25
135280	Rock	0.05	764	0.6	28	45	: 63	29	<5	<3	3	<10	<2	<0.2	2	<1	56	<5	28
135281	Rock	<0.01	31	0.2	32	<2	185	<5 -	<5	<3	5	· <10	<2	<0.2	18	4	3	<5	21
135282	Rock	<0.01	479	<0.1	34	<2	59	<5	<5	<3	2	<10	<2	<0.2	15	5	38	<5	32
135283	Rock	0.11	772	<0.1	36	<2	66	<5	<5	<3	3	<10	<2	<0.2	19	3	58	<5	24
135284	Rock	0.01	847	0.4	15	<2	65	10	<5	<3	4	<10	<2	<0.2	13	3	54	<5	42
135285	Rock	0.01	362	0.2	27	<2	71	<5	<5	<3	3	<10	<2	<0.2	14	2	23	<5	33
135286	Rock	0.01	742	0.2	24	<2	21	<b>&lt;</b> 5	<5	- 	8	<10	<2	<0.2	2	<1	48	<5	22
135287	Rock	0.01	800	0.2	52	<2	74	<5	<5	<3	3	<10	<2	<0.2	22	3	126	<5	30
135288	Rock	0.01	500	0.4	37	<2	127	<5	<5	<3	3	<10	<2	<0.2	16	8	27	<5	27
135516	Rock	0.23	250	2.2	19	<2	2	35	6	<3	6	<10	. <2	<0.2	<1	<1	26	<5	39
					<u> </u>		•		· ·				<b>.</b>	. <b></b> .		<b></b> .			
Minimum Detection		0.01	10 10000	0,1	1 10000 1	2 1 0000 1	1 0001	5	5 2000 1	3 10000	1000	10	2 • 2000	0.2	10000	10000	2	5 1000	10000
		0000.00	20000	200.0		10000 1	70000	10000	LVVV J		¥000	<b>TOOO</b>	2000	CUVU.U	T0000	10000	10000	1000	10000

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INTERNATIONAL PLASMA LABS	LTD.															Websild	www.bj	्र दृष्ट्र इन्द्रस	
Tient : Cumberland Resourd Project: Fire Creek	ces Ltd.	Ship#FC-2	87 2 8	Samp 7=Rock	ies 5=Rej	peat	1=Bik iPl	. 1=	Std iPL	[19921	3:53:13:	60021006	;003]	Print: Feb In: Sep	10.200 14.200	б Р 5 S	age ection	1 of 2 of	3 2
Sample Name	t ppr	/ Mn n ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti X	A] X	Ca X	Fe X	Mg X		Na X	P 3					
135251 135252 135253 135254 135255	13	2 52 3 9 4 8 3 210 2 321	<2 <2 2 <2 <2 <2	2 23 24 11 35	<1 <1 <1 1 <1	<1 <1 <1 <1 <1 2	<0.01 <0.01 <0.01 0.14 0.03	0.06 0.11 0.14 0.41 1.41	0.01 <0.01 <0.01 0.01 0.17	0.83 0.70 0.77 3.09 3.63	0.02 <0.01 <0.01 0.33 1.40	0.02 0.05 0.07 0.15 0.04	0.03 0.04 0.05 0.05 0.05	0.01 0.01 <0.01 0.04 0.03					
135256 135257 135258 135259 135260	37 14 12(	7 693 5 15 4 509 5 567 7 24	3 <2 21 <2	27 32 9 128 3	<1 <1 <1 14 1	3 <1 <1 4 <1	0.04 <0.01 0.03 0.22 0.13	2.01 0.22 1.02 3.31 0.27	0.85 0.01 0.02 2.07 0.03	3.53 1.11 2.67 3.94 1.77	1.19 0.01 1.18 1.41 0.06	0.06 0.03 0.16 0.19 0.15	0.06 0.07 0.03 0.08 0.03	0.05 <0.01 0.05 0.15 0.03					
135261 135262 135263 135264 135265	1( 6 31 142 32	) 112 5 15 1 783 2 726 2 352	<2 <2 <2 <2 <2	6 2 27 19 33	<1 <1 <1 <1 <1	<1 <1 1 3 1	0.08 0.01 <0.01 0.06 0.06	0.42 0.20 2.01 2.09 1.14	0:02 <0.01 0.33 0.23 0.32	2.02 0.80 3.53 4.79 2.59	0.28 0.04 1.56 1.85 0.87	0.26 0.21 0.03 0.13 0.09	0.03 0.03 0.05 0.06 0.05	0.03 0.02 0.05 0.08 0.06					
135266 135267 135268 135269 135270	8 16 78	3     14       7     8       5     12       5     198       3     360	<2 <2 <2 <2 3	22 22 7 11 93	<1 <1 <1 <1 <1	<1 <1 <1 1 5	<0.01 <0.01 <0.01 <0.01 <0.01	0.18 0.23 0.11 0.84 3.06	0.01 <0.01 <0.01 <0.01 0.01	2.80 3.65 1.15 2.90 3.00	0.01 <0.01 <0.01 0.96 2.43	0.04 0.03 <0.01 0.07 <0.01	0.06 . 0.08 0.02 0.05 0.03	<0.01 <0.01 <0.01 0.01 0.02					
135271 135272 135273 135274 135275		7 9 7 69 5 11 5 14 5 12	<2 <2 <2 <2 <2	68 32 37 14 27	<1 <1 <1 1 <1	<1 <1 <1 <1 <1	<0.01 <0.01 <0.01 <0.01 <0.01	0.22 0.53 0.35 0.15 0.06	<0.01 0.01 <0.01 <0.01 <0.01	0.85 1.66 0.18 0.95 2.67	0.01 0.45 <0.01 <0.01 <0.01	0.05 0.08 0.03 0.02 0.02	0.07 0.06 0.12 0.03 0.03	<0.01 0.01 <0.01 0.01 0.01					
135276 135277 135278 135279 135280	83	3 75 3 49 2 12 3 814 7 511	<2 <2 <2 3 5	69 22 27 92 105	<1 <1 <1 1 <1	<1 <1 <1 3 <1	<0.01 0.01 <0.01 0.04 <0.01	0.04 0.19 0.04 2.69 0.80	<0.01 0.01 <0.01 0.55 0.02	2.06 2.38 1.14 4.56 3.06	<0.01 0.02 <0.01 2.02 0.89	<0.01 0.04 0.04 0.02 0.09	0.03 0.03 0.03 0.04 0.07	0.01 0.02 <0.01 0.13 0.05					
135281 135282 135283 135284 135284 135285	161 33 41 20 42	1 795 3 404 1 588 5 71 2 352	<2 <2 <2 <2 <2 <2	4 39 36 33 - 49	<1 <1 1 2 <1	10 1 2 2 2	0.01 0.10 0.11 0.20 0.01	3.92 1.77 2.18 0.66 1.60	0.08 0.51 0.61 0.42 0.35	4.52 2.23 2.60 1.87 4.12	3.82 1.37 1.62 0.36 1.21	<0.01 0.07 0.16 0.13 0.05	0.05 0.04 0.04 0.05 0.06	0.04 0.04 0.05 0.03 0.05					
135286 135287 135288 135516	53 55 30	2 128 702 3 471 5 14	5 <2 <2 3	12 23 35 3	<1 1 <1 <1	3 2 2 <1	<0.01 0.16 0.04 <0.01	1.42 2.45 1.55 0.18	0.01 0.38 0.39 0.01	6.85 3.41 2.46 1.50	1.29 2.02 0.91 0.01	0.05 1.05 0.09 0.11	0.06 0.05 0.04 0.04	0.06 0.05 0.05 <0.01					
linimum Detection laximum Detection lethod	1 10000 ICP	1 10000 ICP	2 10000 ICP	1 10000 ICP	1 10000 ICP	1 10000 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10,00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 5.00 ICP					



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### **CERTIFICATE OF ANALYSIS** iPL 05I1992

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Client : Cumberland Res Project: Fire Creek	sources Ltd.	87 Ship#FC-2	87=Rock	les 5=Re	peat	1=81k -	iPL :	l=Std iP	ν. [1	99213:5	3:13:60	021006:	003]	Print: F In: S	eb 10. ep 14.	2006 2005	Pag	ge ction	2 of 3 1 of 2
Sample Name	Туре	Au g/mt	Ba ppm	Ag ppm	Cu ppm	РЬ ррт	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	T ו הקק	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W Mqq	Cr ppm
135517	Rock	0.23	761	0.6	39	<2	3	7	<5	<3	5	<10	<2	<0.2	10	3	- 15	<5	87
135518	Rock	0.36	3757	0.6	27	38	2	39	<5	<3	3	<10	<2	<0.2	2	<1	335	<5	ร์เ
135519	Rock	0.18	2774	0.2	13	<2	1	9	<5	<3	3	<10	<2	<0.2	1	<1	237	<Š	83
135520	Rock	0.19	846	0.2	8	<2	<1	8	<5	<3	. 2	<10	<2	<0.2	<1	<]	70	<5	63
135521	Rock	0.18	875	<0,1	4	<2	<1	7	<5	<3	2	<10	<2	<0.2	<1	<1	54	<5	63
135522	Rock	0,26	1872	0.4	6	<2	<1	10	<5	<3	2	<10	<2	<0.2	1	<1	143	<5	54
135523	Rock	0.04	249	0.2	40	<2	54	125	<5	<3	3	<10	<2	<0.2	5	5	69	<5	107
135524	Rock	0.51	179	0.6	24	5	2	204	5	<3	6	<10	<2	<0.2	7	3	42	<5	101
135525	Rock	0.64	3366	1.0	11	3	<1	35	<5	<3	2	<10	<2	<0.2	<]	<1	136	<5	81
135526	Rock	0.07	. 1139	0.2	22	<2	92	10	<5	<3	3	<10	<2	<0.2	5	2	158	<5	24
135527	Rock	0.47	306	3.6	14	68	72	42	<5	<3	7	<10	<2	<0.2	7	5	13	<5	73
135528	Rock	0.20	1175	1.6	27	59	6	16	<5	<3	3	<10	<2	<0.2	3	<1	35	<5	99
135529	Rock	0.35	9850	0.8	13	33	1	14	<5	<3	1	<10	<2	<0.2	1	<]	128	<5	88
135530	Rock	0.87	4810	1.8	11	34	<1	27	9	<3	3	<10	<2	<0.2	<1	2	122	<5	111
135531	Rock	0.63	4715	2.0	26	30	<1	178	10	<3	5	<10	<2	<0.2	<1	<1	194	<5	89
135532	Rock	0.19	2109	0.8	13	40	1	58	<5	<3	4	<10	· <2	<0.2	2	3	48	<5	82
135533	Rock	0.20	609	0.8	17	17	3	10	<5	<3	2	· <10	<2	<0.2	7	3	19	<5	73
135534	Rock	0.28	7084	0.6	24	4	1	35	<5	<3	5	<10	<2	<0.2	<1	3	745	<5	87
135535	Rock	0.01	726	<0.1	25	<2	22 -	<5	<5	<3	3	<10	<2	<0.2	13	7	30	<5	21
135536	Rock	0.01	785	0.8	337	29	2	447	<5	<3	1	<10	<2	<0.2	2	5	74	<5	150
135537	Rock	<0.01	604	0,6	308	<2	2	108	<5	<3	11	<10	<2	<0.2	23	12	8	<5	63
135538	Rock	0.01	231	<0.1	÷ 45	<2	77	<5	<5	<3	4	<10	<2	<0.2	15	<1	18	<5	31
135539	Rock	0.02	126	<0.1	9	<2	3	6	<5	<3	2	<10	<2	<0.2	<1	<1	14	<5	40
135540	Rock	0.01	202	<0.1	8	<2	<1	5	<5	<3	1	<10	<2	<0.2	<1	3	176	<5	116
135541	Rock	0.02	814	2.0	1216	<2	6	467	<5	<3	6	<10	<2	<0.2	41	35	9	<5	49
135542	Rock	0.03	102	0.8	105	<2	3	44	<5	<3	3	<10	<2	<0.2	22	4	13	<5	88
135543	Rock	0.40	393	0.6	76	<2	23	36	15	<3	2	<10	<2	<0.2	8	<1	16	<5	70
135544	Rock	0.01	7259	3.2	426	5	1	151	9	<3	1	<10	<2	<0.2	1	<]	270	. <5	126
135545	Rock	• 0.01	653	0.2	112	2	<1	71	<5	<3	3	<10	<2	<0.2	5	3	58	<5	58
135546	Rock	0.01	576	0.2	27	<2	32	11	<5	<3	4	<10	<2	<0.2	1	<1	144	<5	28
135547	Rock	0.01	444	0.8	22	<2	1	71	<5	<3	5	<10	<2	<0.2	1	<]	90	<5	72
135548	Rock	0.10	461	0.2	34	<2	37	21	<5	<3	4	<10	<2	<0.2	4	<1	56	<5	17
135549	Rock	0.01	426	<0.1	21	<2	3	5	<5	<3	3	< 10	<2	<0.2	34	13	10	<5	60
135550	Rock	0.10	8146	0.4	30	<2	1	79	20	<3	3	<10	<2	<0.2	1	<1	885	<5	86
135551	Rock	0.04	911	0.2	14	10	25	48	<5	<3	2	<10	<2	<0.2	3	<1	92	<5	31
135552	Rock	0.13	913	0.4	16	<2	1	14	· <5	<3	2	<10	<2	<0.2	2	<1	363	<5	96
135553	Rock	<0.01	195	<0.1	9	<2	133	<5	<5	<3	5	<10	<2	<0.2	1	<1	16	<5	24
135554	Rock	0.03	635	0.2	27	10	53	19	<5	<3	4	<10	<2	<0,2	1	<1	28	<5	50
135555	Rock	<0.01	516	<0.1	7	<2	14	<5	<5	<3	. 8	<10	<2	<0.2	2	8	26	<5	27
Water Bateria					<u> </u>		·	·											
Maximum Detection		0,01 5000,00	10 10000	0.1 100.0	1 10000	2 10000	1 10000 - 1	5 10000 ··	5 2000	3 10000	$1 \\ 1000$	10 1000	2 2000	0.2	1 10000	1 10000	2 10000	5 1000	1 10000

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INTERNATIONAL PLASMA LABS LTD

## CERTIFICATE OF ANALYSIS iPL 0511992

11000 Horsenece V/a. Richmond B.C. Canada V7A 1V5 Phone (804) 874 1878 Fax (604) 879 7898 Website www.pt/ca ı

iso and 2000 CERTIFIED COMPA lient : Cumberland Resourc 'roject: Fire Creek	ces Ltd. Sh	ip#FC-2	87 S	Sampl '=Rock	es 5=Rep	eat	l≖Blk if	PL 1=	Std iPL	[19921	3:53:13:	60021006	5:003]	Print: F In: S	eb ep	10, 2006 14, 2005	Page Sectior	2 1 2	of 3 of 2
Sample Name	v ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti X	A1 X	Ca X	Fe X	Mg X	K X	Na X	P A					
135517 135518 135519 135520 135521	4 23 6 . 4 4	12 7 9 7 7	<2 2 2 2 4	22 26 13 15 5	<1 <1 <1 <1 <1 <1	<1 <1 <1 <1 <1	<0.01 <0.01 <0.01 <0.01 <0.01	0.11 0.14 0.14 0.15 0.13	0.02 <0.01 <0.01 <0.01 <0.01 <0.01	2.46 5.00 2.81 1.03 0.81	<0.01 <0.01 <0.01 <0.01 <0.01 <0.01	0.06 0.06 0.08 0.07 0.07	0.03 0.03 0.04 0.04 0.04	<pre>3 &lt;0.01 0.02 0.01 &lt;0.01 &lt;&lt;0.01 &lt;&lt;0.01 &lt;&lt;0.01</pre>			•.		
135522 135523 135524 135525 135526	9 54 10 5 64	6 208 17 10 1780	4 2 ~2 2 ~2	15 49 7 275 21	<1 1 <1 <1 <1 <1	1 3 <1 <1 3	<0.01 0.06 <0.01 <0.01 <0.01	0.12 0.86 0.08 0.12 2.91	<0.01 0.12 0.01 <0.01 0.10	1.22 3.47 2.57 1.80 4.33	<0.01 0.57 0.01 <0.01 2.42	0.06 0.10 0.03 0.09 0.05	0.04 0.07 0.03 0.04 0.04	<pre>&lt;0.01 0.10 0.01 0.02 0.05</pre>					
135527 135528 135529 135530 135531	12 3 3 7 11	334 21 10 12 10	<2 <2 <2 <2 2 2	24 132 51 28 29	<1 <1 <1 <1 <1	<1 <1 <1 <1 ,<1	<0.01 <0.01 <0.01 <0.01 <0.01	0.56 0.15 0.18 0.16 0.15	0:01 0.01 <0.01 <0.01 <0.01 <0.01	3.56 0.87 0.38 0.70 1,79	0.41 0.01 <0.01 <0.01 <0.01 <0.01	0.06 0.05 0.06 0.10 0.08	0.05 0.04 0.05 0.05	0.02 <0.01 0.01 <0.01 <0.01 0.01					
135532 135533 135534 135535 135536	7 4 6 10 1	11 11 10 156 22	<2 <2 <2 <2 <2	86 169 65 6 14	<1 <1 <1 <1 <1	<1 <1 <1 <1 <1	<0.01 <0.01 <0.01 <0.01 <0.01	0.13 0.14 0.15 0.75 0.04	<0.01 <0.01 <0.01 0.10 <0.01	1.01 2.19 2.28 4.12 0.61	<0.01 <0.01 <0.01 0.83 0.01	0.07 0.08 0.02 0.07 0.02	0.04 0.04 10.04 0.05 0.03	0.01 <0.01 0.01 0.07 <0.01					
135537 135538 135539 135540 135541	5 33 4 2 8	10 662 17 14 7	<2 <2 <2 <2 <2 <2	11 37 8 11 20	<1 <1 <1 <1 1	<1 2 <1 <1 <1 <1	<0.01 0.05 <0.01 <0.01 <0.01	0.22 1.78 0.10 0.06 0.15	<0.01 0.46 0.01 <0.01 <0.01	4.51 3.46 1.90 0.63 9.14	<0.01 1.78 0.02 <0.01 <0.01	0.06 0.03 <0.01 <0.01 0.04	0.08 0.08 0.03 0.03 0.03	8 <0.01 8 0.04 8 0.01 8 <0.01 8 <0.01		• .			
135542 135543 135544 135545 135545 135546	7 7 1 6 19	11 12 14 7 250	<2 <2 <2 <2 <2 2	10 9 37 33 12	1 <1 <1 <1 <1	<1 <i &lt;1 &lt;1 &lt;1 1</i 	<0.01 <0.01 <0.01 <0.01 <0.01	0.07 0.22 0.02 0.22 0.86	<0.01 <0.01 <0.01 <0.01 0.02	4.86 3.20 0.30 1.15 2.31	<0.01 <0.01 <0.01 <0.01 <0.95	0.03 0.07 <0.01 0.04 0.05	0.04 0.03 0.02 0.07 0.05	4 <0.01 8 <0.01 2 <0.01 7 <0.01 5 0.01					
135547 135548 135549 135550 135551	11 24 8 2 24	10 261 13 13 212	<2 <2 <2 <2 <2 2	37 56 10 64 45	<1 <1 <1 <1 <1	<1 2 <1 <1 3	<0.01 <0.01 <0.01 <0.01 <0.01	0.20 1.01 0.37 0.05 0.73	<0.01 0.01 <0.01 <0.01 0.10	2.36 3.30 4.24 1.66 2.91	0.01 0.94 0.01 <0.01 0.39	0.08 0.04 0.02 <0.01 0.10	$\begin{array}{c} 0.06 \\ 0.08 \\ 0.03 \\ 0.03 \\ 0.03 \\ 0.11 \end{array}$	5 0.01 3 0.02 3 <0.01 3 0.01 5 0.06					
135552 135553 135554 135555	4 66 20 48	15 516 218 104	<2 <2 <2 4	16 5 3 23	<1 <1 <1 <1	<1 4 <1 2	<0.01 0.01 <0.01 0.01	0.09 2.11 1.14 2.50	<0.01 0.01 <0.01 0.03	2.18 2.22 2.92 4.09	0.01 2.66 1.44 1.68	0.02 0.02 0.09 0.06	0.04 0.05 0.03 0.06	0.01 0.02 0.04 0.03					
inimum Detection aximum Detection ethod 	1 10000 ICP pple Del-De	1 10000 1 ICP lay Max:	2 0000 1 ICP =No Estín	1 0000 1 ICP nate Rec	1 0000 1 ICP =RcChec	1 0000 ICP	0.01 10.00 ICP	0.01 10.00 ICP Estimate 6	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 5.00 1CP					

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Richmond, B.C. Canado V/A 4VS Prione (604) 879-7878 Fox (604) 879-7898

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Project: Fire Creek	sources Ltd. Ship#	87 FC-2 8	Sampl 7=Rock	es 5=Rep	eat	1=B1k i	PL 1	=Std iP	L [19	9213:53	:13:600	121006:0	Pi 103]	rint: Fel In: Se	b 10, 20 p 14, 20	006 005	Page Sect	e 3 tion 1	of 3 of 2
Sample Name	Туре	Au g/mt	Ba ppm	Ag ppm	Cu ppm	Pb ppm	Zn	As ppm	Sb ppm	Hg ppm	Mo ppm	T1 ppm	8i ppm	Cd ppm	Со ррт	Ni ppm	8a ppm	W ppm	Cr ppm
135556 136557 135558 135559 135560	Rock Rock Rock Rock Rock Rock	0.01 0.01 0.20 0.02 0.02	366 363 665 364 988	<0.1 0.2 1.2 0.2 0.4	14 225 651 58 25	<2 <2 <2 <2 <2 <2 <2	22 2 5 1 50	<5 73 236 21 11	<5 <5 10 <5 <5	<3 <3 <3 <3 <3	4 2 6 3 9	<10 <10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2	2 23 33 18 3	<1 4 <1 4 <1	50 12 8 8 59	<5 <5 <5 <5 <5	18 79 49 89 27
135561 135562 135563 135564 RE 135251	Rock Rock Rock Rock Rock Repeat	0.03 <0.01 <0.01 <0.01 <0.01 0.01	318 209 475 435 110	0.2 0.2 0.2 0.2 0.2	23 12 15 10 17	<2 <2 <2 <2 <2	75 57 57 45 7	18. <5 <5 <5 6	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	€3 <3 <3 <3 <3	4 5 5 4 2	<10 <10 <10 <10 <10	<2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2	3 39 31 17 1	6 5 8 3 <1	22 18 22 22 29	<5 <5 <5 <5	20 37 25 29 100
RE 135270 RE 135517 RE 135536 RE 135556 Blank iPL	Repeat Repeat Repeat Repeat Blk iPL	<0.01 0.22 0.01 0.01 <0.01	147 738 800 367	0.2 0.6 0.8 <0.1	7 39 352 16	<2 <2 31 <2	258 5 26	<5 6 465 <5	<5 <5 <5 <5	<ul> <li>3</li> <li>3</li> <li>3</li> <li>3</li> <li>3</li> <li>3</li> </ul>	4 4 2 2	<10 <10 <10 - <10	<2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2	10 10 3 2	8 4 5 <1	29 16 67 56	<5 <5 <5 <5	45 86 165 20
FA_GS1B FA_GS1B_REF	Std iPL Std iPL	1.03 1.02					_	<u> </u>	_			Ξ				<u></u>			

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FA/AAS AsyMuA ICP ICP

----=No Test Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

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INTERNATIONAL PLASMA LABS LTD. ISO 9001 2000 CERTIFIED COMPANY																Websit	e www.e	lina.	
llient : Cumberland Resources Project: Fire Creek	Ltd. Sh'	ip#FC-2	87 8	-Rock	es 5=Rep	eat	1=Blk iPL	. 1=:	Std iPL	[1 <del>9</del> 9213	:53:13:0	50021006	; 003]	Print: Feb In: Sep	10. 2006 14. 2009	5	Page Section	3 of 2 of	3 2
Sample Name	۷ هرم	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti X	A1 %	Ca پر	Fe X	Mg %	K	Na X	р Х					
135556 135557 135558 135559 135560	29 4 25 2 12	242 17 10 10 221	6 <2 <2 <2 <2 <2 <2	90 51 23 16 3	<1 <1 2 1 <1	3 <1 <1 <1 <1 <1	0.01 <0.01 <0.01 <0.01 <0.01 <0.01	1.29 0.19 0.20 0.06 0.62	0.08 0.01 <0.01 <0.01 <0.01 0.01	4.63 3.51 9.36 4.23 3.11	1.13 0.03 0.01 <0.01 0.49	0.05 0.03 0.05 <0.01 0.14	0.22 0.06 0.05 0.02 0.04	0.12 <0.01 <0.01 <0.01 0.02					
135561 135562 135563 135564 RE 135251	78 50 52 29 2	517 257 281 172 54	4 <2 2 2 <2	26 48 28 32 2	<1 <1 <1 <1	5 1 <1 <1 <1	<0.01 <0.01 <0.01 <0.01 <0.01	2.16 1.43 1.34 1.14 0.07	0.05 0.47 0.46 0.35 0.01	4.76 4.90 3.23 2.44 0.85	2.11 1.18 1.22 0.98 0.03	0.04 0.02 0.03 0.02 0.02	0.07 0.06 0.07 0.08 0.03	0.12 0.10 0.05 0.09 0.01					
RE 135270 RE 135517 RE 135536 RE 135556 Blank iPL	88 5 1 34	437 15 22 282	4 <2 <2 6	95 24 15 96	<1 <1 <1 <1	6 <1 <1 4	<0.01 <0.01 <0.01 0.01	3.45 0.14 0.05 1.53	0.01 0.02 <0.01 0.09	3.30 2.52 0.60 4.70	2.60 0.02 0.01 1.36	<0.01 0.06 0.02 0.06	0.03 0.04 0.04 0.22	0.02 <0.01 <0.01 0.12					
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## CERTIFICATE OF ANALYSIS iPL 05H1888

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11620 Endestion W<sub>ey</sub> Richmond B.C. Catada V7A 4V5 Phone (604) 879-7675 Fax (604) 879-7698 Website www.plice

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150 9001:2000 CERTIFIED COMPANY		15	Samuel	Print, Eab 10, 2006 In. Aug 20	2005	5700013 G	
Project · Fire Creek		15	Sampi	<b>23</b> Prant: Feb 10, 2006 In: Aug 30	. 2005	[188813:5/	2:53:60021006:003]
Shipper · Andrew Hamilton	CODE	AMOUNT	TYPE	PREPARATION DESCRIPTION			
Shipment: FC-1 PO#:	B21100	15	Rock	crush, solit & pulverize to -150 mesh.		Ţ	2M/Dis 03M/Die
Comment:	884100		Repeat	Repeat sample · no Charge		ĵ	2M/Dis 00M/Dis
					NS=No Sample	Rep=Replicate M=M	onth Dis=Discard
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	Ana	lysis: ICP	(AqR)30				
	## Code	Method	Units	Description	Floment	limit.	limit
		na choa	0111.0.0	beser (peron	LICHENC	Low	High
Document Distribution	01 0721	1CP	ppm	Ag ICP	Silver	0.1	100.0
1 Cumberland Resources Ltd. EN RT CC IN F	X 02 0711	ICP	ррл	Cu ICP	Copper	1	10000
950 - 505 Burrard St. Box 72 1 2 1 0	1 03 0714	ICP	ppm	Pb ICP	Lead	2	10000
[ Vancouver, DL 3D EM BT B	L 04 0730	ICP	ppm	Zn ICP	Zinc	1	10000
BC V7X 1M4 0 0 1 0	0 05 0703	ICP	ppm	As ICP	Arsenic	5	10000
Canada		100		51 30B		-	0000
Att: Andrew Hamilton Ph:604/608-255	/10610/02	ICP	ppm	SD ICP	Antimony	5	2000
FX:604/608-255	9 07 0732	ICP ICD	ppm	HG ICP	Mercury	3	10000
Emitanami i ton@cumberiandresources.co		102	ppm	MO IUP	The line	1	1000
12 Cumberland Recourses (td ENIDT CC TN E	V 10 0705	10F 10D	ppm	at the	(Bellium Signath	10	2000
$12$ comperiance resources Ltd. $CR \times CC INV$	0 10 0/00	ICF	իիպ		D1500001	Ľ	2000
	ĭ 111 0707	ICP	വന	Cd TCP	Cadmium	0.2	2000-0
1 BC V7X 1M4 0 0 1 0	0 12 0710	ÎCP	72"" DDM	Co ICP	Cobalt	1	10000
Canada	13 0718	ICP	000	NI ICP	Nickel	1	10000
Att: Kerry Curtis Ph:604/608-255	7 14 0704	ICP	DDA	Ba ICP (Incomplete Digestion)	Barium	2	10000
Fx:604/608-255	9 15 0727	ICP	DDM	W ICP (Incomplete Digestion)	Tungsten	5	1000
Em:kcurtis@cumberlandresources.co	mi i				•		
	16 0709	ICP	ppm	Cr ICP (Incomplete Digestion)	Chromium	1	10000
[3 Cumberland Resources Ltd. EN RT CC IN F	X 17 0729	ICP	ррп	V ICP (Incomplete Digestion)	Vanadium	1	10000
	0 18 0716	ICP	ppm	Mn ICP	Manganese	1	10000
UL 30 EM BI B		ICP	ppm	La ICP (incomplete Digestion)	Lanthanum	2	10000
0 1 0	0/20/0723	ICP	ppm	SF ICP (Incomplete Digestion)	Strontlum	1	10000
Att: Roger March Ph-604/881-673	6 21 0731	ICP	നന	Zr JCP (Incomplete Digestion)	7irconium	}	10000
Fx:604/881-837	2 2 0736	ÎČP	DDM	Sc TCP	Scandium	1	10000
Em:rmarch@cumberlandresources.co	m 23 0726	ICP	X	Ti ICP (Incomplete Digestion)	Titanium	0.01	10.00
	24 0701	ICP	*	Al ICP (Incomplete Digestion)	Aluminum	0.01	10.00
4 Cumberland Resources Ltd. EN RT CC IN F	X 25 0708	ICP	7	Ca ICP (Incomplete Digestion)	Calcium	0.01	10.00
0 0 0 0	0						
DL 3D EM BT B	L 26 0712	ICP	X	Fe ICP (Incomplete Digestion)	Iron	0.01	10.00
0 0 1 0	0]27 0715	ICP	*	Mg ICP (Incomplete Digestion)	Magnesium	0.01	10.00
Att. Candan Davidana Db. (0 ( 001 (72)	28 0720	100	ž	K ICP (Incomplete Digestion)	Potassium	0.01	10.00
Att: Gordon Davidson Ph:004-881-0736	. 29/0722	ICP	3	Na ICP (Incomplete Digestion)	5001UM	0.01	10.00
Fx:004-881-8572	12010113	ICP	4	P ICP	Phosphorus	0.01	5.90
zan.geavioxonge/cumocrianuresources.com							
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BC Certified Assayer: David Chiu

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### **CERTIFICATE OF ANALYSIS** iPL 05H1888

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ient : Cumberland R oject: Fire Creek	esources Ltd. Ship	#FC-1	5 Sant 15=Roc	iples :k 1=	Repeat					[188813	:52:53:	60021006	:003]	Print: In;	Feb 10 Aug 30	. 2006 . 2005		Page Section	l of l of
mple Name	Type	Ag ppm	Cu ppm	РЬ ррм	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppnn	T1 ppm	Ві ррт	Cd ppm	Со ррт	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Мл ррм
35501 35502 35503 35504 35505	Rock Rock Rock Rock Rock Rock	<0.1 <0.1 <0.1 0.7 <0.1	7 4 16 18 41	<2 12 <2 48 <2	4 3 4 2 18	13 <5 <5 27 <5	<5 <5 <5 <5 <5	<3 <3 <3 <3 <3 <3	2 5 2 10 3	<10 <10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2	<1 2 6 5 3	<1 4 3 <1 <1	128 1621 48 65 31		67 138 72 41 35	6 2 8 4 22	14 16 11 6 170
5506 5507 5508 5509 5510	Rock Rock Rock Rock Rock	<0.1 <0.1 <0.1 <0.1 <0.1	73 174 24 49 39	<2 <2 <2 <2 <2	22 29 29 5 2	<5 <5 <5 <5 <5	<5 <5 <5 <5	<3 <3 <3 <3 <3	3 3 1 6 6	<10 <10 <10 <10 <10	<2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2	16 23 7 56 25	7 4 <1 16 6	20 23 21 10 12	୍ୟ ୧୨ ୧୨ ୧୨ ୧୨ ୧୨ ୧୨ ୧୨ ୧୨ ୧୨ ୧୨ ୧୨ ୧୨	31 30 31 36 115	20 34 21 6 3	270 398 149 4 15
15511 15512 35513 35514 35515	Rock Rock Rock Rock Rock	<0.1 <0.1 <0.1 <0.1 <0.1	23 31 29 24 92	<2 <2 <2 <2 21	3 3 118 5 2.	<5 <5 <5 53	<5 <5 <5 <5	<3 <3 <3 <3	3 6 <1 3 3	<10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2	29 41 7 7 25	12 7 <1 <1 4	10 8 42 51 27	<5 <5 <5 <5	62 43 31 29 62	5 7 62 22 11	7 5 163 27 9
. 135501	Repeat	<0.1	6	<2	3	16	<5	<3	2	<10	<2	<0.2	<1	<1	133	<5	72	7	13
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#### CERTIFICATE OF ANALYSIS iPL 05H1888



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INTERNATIONAL PLASMA LABS	1.TO												(intertisk)	Websile www.ist		
Client : Cumberland Resour Project: Fire Creek	ces Ltd. Shi	ip#FC-1	15 S	Sampi S=Rock	les 1=Repo	eat				[188813:5	52:53:60	021006:003]	Print: Feb 10, 2006 In: Aug 30, 2005	Page Section	1 of 2 of	1 2
Sample Name	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti X	A) X	Ca X	Fe X	Mg X	K X	Na X	Р \$		·····		
135501 135502 135503 135504 135505	3 <2 <2 <2 <2 <2 <2	13 259 19 8 13	1 1 1 1 <1 <1	<1 <1 1 <1 1	<0.01 <0.01 <0.01 <0.01 <0.01	0.17 0.04 0.21 0.07 0.76	0.01 0.01 0.01 0.01 0.10	1.16 0.25 1.80 2.31 2.82	0.01 <0.01 0.01 <0.01 <0.01 0.72	0.05 <0.01 0.09 0.04 0.07	0.02 0.02 0.03 0.02 0.05	<pre>&lt;0.01 &lt;0.01 &lt;0.01 &lt;0.01 0.01 0.02</pre>				
135506 135507 135508 135509 135510	<2 <2 <2 <2 <2	9 8 14 6 3	1 1 4 2	1 6 3 <1 - 1	<0.01 <0.01 <0.01 <0.01 <0.01	0.98 1.80 0.79 0.15 0.06	0.18 0.09 0.05 <0.01 0.01	4.40 4.69 3.70 12% 4.68	0.92 1.35 0.58 <0.01 0.01	0.05 0.07 0.06 <0.01 <0.01	0.05 0.04 0.04 0.02 0.02	0.03 0.07 0.04 <0.01 <0.01				
135511 135512 135513 135514 135515	<2 <2 <2 <2 3	16 18 79 25 252	2 2 <1 1 1	<1 <1 4 2 <1	<0.01 <0.01 <0.01 <0.01 <0.01	0.18 0.38 2.47 0.44 0.30	<0.01 <0.01 0.01 0.05 0.01	8.57 10 <b>%</b> 3.29 3.85 3.26	<0.01 <0.01 1.89 0.03 0.01	<0.01 <0.01 <0.01 0.05 0.04	0.02 0.02 0.03 0.05 0.05	<0.01 <0.01 0.01 0.01 0.02				
RE 135501	3	14	<1	<1	<0.01	0.18	0.01	1.15	0.01	0.05	0.02	<0.01				
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Minimum Detection Maximum Detection Method	2 10000 1 ICP	1 10000 1 ICP	1 0000 1 ICP	1 10000 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 10.00 ICP	0.01 5.00 ICP	<u> </u>			

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		Ċ.	ERIIF	ICA OF ANALYSIS IPL 05H1810	1 1	Sector Phone Fax	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Cumberland Resources Ltd.		15	Sample	es Print: Aug 26, 2005 In: Aug 22,	2005	[181011	sile_www.ipl.ca :12:49:50082605:0011
Shipper : Andrew Hamilton Shipment: FC-1 PO#: Comment:	COD B2110 B8410 88210 B9001	E AMOUNT 0 15 0 1 1 1 0 1	TYPE Rock Repeat 81k iPL Std iPL	PREPARATION DESCRIPTION crush, split & pulverize Repeat sample - no Charge Blank iPL - no charge. Std iPL(Au Certified) - no charge			PULP REJECT 12M/Dis 03M/Dis 12M/Dis 00M/Dis 00M/Dis 00M/Dis
	An An	alytical alysis: Au	Summa (FA/AAS	ry 30) Au(FA/Grav)Au>1.0g/mt / ICP(Multi-Ad	NS=No Sample rid)30	Rep=Replicate	1=Month Dis=Discard
Document Distribution EN RT CC IN FX	## Cod	e Method	Units	Description	Element	Limit Lov	t Limit √ High
950 - 505 Burrard St. Box 72 1 2 1 0 1   Vancouver. DL 30 EM BT BL   BC V7X 1M4 0 0 1 0 0   Canada Att: Andrew Hamilton Ph:604/608-2557	01 036 02 072 03 071 04 071 05 073	B FA/AAS 1 ICP 1 ICP 4 ICP 0 ICP	g/mt ppm ppm ppm ppm	Au (FA/AAS 30g) g/mt Ag ICP Cu ICP Pb ICP Zn ICP	Gold Silver Copper Lead Zinc	0.01 0.1 1 1	1 5000.00 1 100.0 1 10000 2 10000 1 10000
FX:0047608-2559 Em:ahamilton@cumberlandresources.com	06 070 07 070 08 073 09 071 10 074	3 ICP 2 ICP 2 ICP 7 ICP 7 ICP	bbw bbw bbw	As ICP Sb ICP Hg ICP Mo ICP Tl ICP (Incomplete Digestion)	Arsenic Antimony Mercury Molydenum Thallium	10	5 10000 5 2000 3 10000 1 1000 0 1000
	11 070 12 070 13 071 14 071 15 070	5 ICP 7 ICP 0 ICP 8 ICP 4 ICP	ppm ppm ppm ppm	Bi ICP Cd ICP Co ICP Ni ICP Ba ICP (Incomplete Digestion)	Bismuth Cadmium Cobalt Nickel Barium	0.2	2 2000 2 2000.0 1 10000 1 10000 2 10000
	16 072 17 070 18 072 19 071 20 071	7 ICP 9 ICP 9 ICP 9 ICP 6 ICP 3 ICP	ppm ppm ppm ppm ppm	W ICP (Incomplete Digestion) Cr ICP (Incomplete Digestion) V ICP (Incomplete Digestion) Mn ICP La ICP (Incomplete Digestion)	Tungsten Chromium Vanadium Manganese Lanthanum		5 1000 1 10000 1 10000 1 10000 2 10000
	21 072 22 073 23 073 24 072 25 070	3 ICP 1 ICP 6 ICP 6 ICP 1 ICP	ppm ppm ppm X	Sr ICP (Incomplete Digestion) Zr ICP (Incomplete Digestion) Sc ICP Ti ICP (Incomplete Digestion) Al ICP (Incomplete Digestion)	Strontium Zirconium Scandium Titanium Aluminum	0.0	1 10000 1 10000 1 10000 1 10.00 1 10.00
	26 070 27 071 28 071 29 072 30 072	8 ICP 2 ICP 5 ICP 0 ICP 2 ICP	* * * *	Ca ICP (Incomplete Digestion) Fe ICP (Incomplete Digestion) Mg ICP (Incomplete Digestion) K ICP (Incomplete Digestion) Na ICP (Incomplete Digestion)	Calcium Iron Magnesium Potassium Sodium	0.01 0.01 0.01 0.01 0.01	1 10.00 1 10.00 1 10.00 1 10.00 1 10.00 1 10.00
	31 071	9 ICP	ž	P ICP .	Phosphorus	0.00 ( /	l 5.00

EN=Envelope # RT=Report Style CC=Copies IN=Invoices Fx=Fax(1=Yes 0=No) Totals: 1=Copy 0=Invoice 0=3½ Disk DL=Download 3D=3½ Disk EM=E-Mail BT=BBS Type BL=BBS(1=Yes 0=No) ID=C034106 \* Our liability is limited solely to the analytical cost of these analyses.

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BC Certified Assayer: David Chiu

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#### **CERTIFICA**<sup>", ¬</sup> **OF ANALYSIS** iPL 05H1810



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2086 Onlimibia Street Vancouv .C. Canada V5Y 3E1 Phone (604) 879-7873 Fax (604) 879,7200.

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lient : roject:	Cumberland Resou Fire Creek	rces Ltd. Ship#F	C-1	Samp 15=Rock	les 1=Re	epeat	1=B1k	iPL	1=Std t	IPL []	81011:1	2:49:50	082605:	001]	rint: Au In: Au	ıg 26. ıg 22.	2005 2005	Pag Sec	ge Stion	l of 1 1 of 2
Sample	Name	Туре	Au g/mt	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	T1 ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V Ppm
135501 135502 135503 135504 135505	<u> </u>	Rock Rock Rock Rock Rock Rock	0.08 0.02 0.13 0.20 0.01	<0.1 <0.1 <0.1 <0.1 <0.1 <0.1	15 12 23 26 44	27 27 25 63 14	4 4 3 34	১ ১ ১ ১ ১ ১ ১ ১ ১	<5 5 <5 6 <5	<3 <3 <3 <3 <3 <3	4 7 3 10 6	<10 <10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2	4 13 8 6 5	<1 <1 <1 <1 <1 <1	1107 2,62¥ 1030 662 548	<5 <5 <5 <5 <5	99 215 119 64 54	78 8 145 75 191
135506 135507 135508 135509 135510		Rock Rock Rock Rock Rock Rock	0.01 0.04 0.01 0.02 0.01	<0.1 <0.1 <0.1 <0.1 <0.1	75 170 32 60 45	<2 <2 <2 <2 <2	33 36 43 5 3	<5 <5 <5 <5	<5 <5 <5 <5	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 4 3 10 7	<10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2	17 24 9 60 26	<1 <1 <1 <1 <1 <1	416 443 395 494 276	<5 <5 <5 <5 <5	47 49 46 65 193	203 214 178 37 20
135511 135512 135513 135514 135515		Rock Rock Rock Rock Rock Rock	0.01 0.02 0.01 0.01 0.01	<0.1 <0.1 <0.1 <0.1 <0.1	30 39 41 30 99	8 <2 <2 14 117	6 4 202 19 4	<5 <5 <5 <5	\$ \$ \$ \$ \$ \$ \$ \$	<3 <3 <3 <3 <3	6 6 4 5	<10 <10 <10 <10 <10	<2 <2 <2 <2 <2 <2	<0.2 <0.2 <0.2 <0.2 <0.2 <0.2	27 39 13 8 25	6 <1 7 <1 <1	310 1544 703 1501 681	ې م م م م م م م م م م م م م م م م م م م	110 81 62 52 116	55 78 229 283 209
RE 1355 Blank i FA_GS18 FA_GS18	01 PL REF	Repeat Blk iPL Std iPL Std iPL	0.08 <0.01 1.00 1.02	<0.1 — —	13 	22 	4	<5 	\$ 	<3 — —	3 	<10 	<2 	<0.2  	3 	<1  	1163 	<5	104 	79 
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INTERNATIONAL PLASMA LAB	S LTD.			_													Fax (604) ( Website www	179-78 tipl.ca	98
lient : Cumberland Resour roject: Fire Creek	ces Ltd. Shi	p#FC-1	15 S	Sampl Rock	es 1=Reș	peat	1=Blk iPL	1=St	:d iPL	[181011:	:12:49:50	0082605:	Р 001]	rint: In:	Aug 26. Aug 22.	2005 2005	Page Section	1 1 2 0	of 1 of 2
Sample Name	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti X	A7 X	Ca X	Fe X	Mg X.	K X	Na X	р Х						
135501 135502 135503 135504 135505	14 17 14 9 306	6 7 5 6 3	144 1878 189 118 176	4 2 5 4 28	8 <1 23 17 16	0.08 <0.01 0.11 0.08 0.08	2.01 0.30 4.42 1.83 9.36	0.02 0.02 0.03 0.02 0.68	1.06 0.25 1.72 2.25 3.68	0.03 0.01 0.03 0.01 1.58	0.54 0.08 1.14 0.31 2.36	0.13 0.04 0.53 0.13 1.57	<0.01 <0.01 <0.01 0.01 0.02						
135506 135507 135508 135509 135510	443 517 333 7 19	7 5 2 <2	223 165 265 187 55	33 21 · 23 3 3	20 23 19 <1 <1	0.06 0.07 0.08 0.05 0.05	9.66 9.27 9.38 1.20 0.61	1.52 1.03 1.84 0.02 0.03	5.78 6.03 4.96 17x 5.02	1.67 1.91 1.03 0.01 0.01	1.56 1.82 1.60 0.04 <0.01	2.38 1.70 2.26 0.05 0.06	0.02 0.06 0.03 0.01 <0.01						
135511 135512 135513 135614 135515	10 7 683 213 13	10 4 3 14	901 833 390 523 1991	4 17 32 33 39	<1 1 26 30 11	0.03 0.03 0.07 0.08 0.03	4.42 7.34 9.98 9.55 8.95	0.02 0.05 0.05 0.68 0.04	9.37 11% 6.30 4.72 3.46	0.01 0.02 2.89 0.11 0.01	0.04 <0.01 0.82 1.55 1.17	0.13 0.14 0.92 1.23 1.83	0.04 0.06 0.02 <0.01 0.09						
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-----No Test Inst-Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

#### APPENDIX D

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## **Rock Sample Descriptions**

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## Rock Sample Descriptions – Fire Creek 2005

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Sample	Easting	Northing	Sample	Length	Description
No.	(UTM)	(UTM)	Туре	(m)	
135501	554282	5515104	grab	-	Unit 2, silicified, trace oxidized py,
135502	554208	5515138	grab	-	Grey chert bed in unit 3, trace vfg rusty py
135503	554208	5515138	grab	_	Unit 2, strong ser. partings, 10-15% diss py
135504	554212	5515129	grab	-	Unit 2, silicified, wk fol, 3-5% diss py
135505	554022	5515329	cont chip	.80	Unit 4, strongly sheared, minor gouge
135506	554022	5515329	cont chip	.50	Unit 4, strongly sheared, minor gouge
135507	554022	5515329	cont chip	.55	Unit 4, strongly sheared, minor gouge
135508	554012	5515324	grab	-	Unit 4, strg fol., weak bleaching, 5% diss. py
135509	554133	5515004	grab	-	Unit 2, ~50% py
135510	554128	5515007	grab	-	Unit 2 with grey chert, 5-7% diss. py
135511	554122	5515011	grab		Unit 2, silicified, ~20% diss. py
135512	554132	5515014	grab	-	Unit 2, silicified, ~20% diss. py
135513	554104	5515007	grab	-	Unit 4, strg sheared, 3-5 % diss. py
135514	554119	5515025	grab	-	Unit 4, strg sheared, 3-5 % diss. py
135515	554096	5515003	grab	-	Unit 2, mod ser, minor yellow min, trace py
135516	554245	5515146	grab	-	Unit 2, mod fol, trace vfg py
135517	554233	5515136	grab	-	Unit 2 with tr chert, strg fol, 5-10% diss. py
135518	554284	5515079	grab	-	Unit 2, silicified, mod ser, trace vfg diss py
135519	554284	5515085	rep. chip	1.0	Unit 2, silicified, mod ser, trace vfg diss py
135520	554282	5515091	rep. chip	1.2	Unit 2, silicified, mod ser, trace vfg diss py
135521	554282	5515128	rep. chip	0.6	Unit 2, silicified, ~2% vfg diss py
135522	554274	5515100	grab	-	Unit 2, silicified, ~2% vfg diss py
135523	554216	5515134	grab	-	Unit 2, sheared & sil with irreg qtz veins
135524	554326	5515065	grab	-	Unit 2, strg sil, 5% dissem vfg py
135525	554328	5515071	rep. chip	1.0	Unit 2, rusty weathering, 1-3% vfg diss. py
135526	554306	5515073	rep. chip	1.0	Unit 4, strg sheared and rusty.
135527	554308	5515074	rep. chip	2.0	Unit 2/3, strg fol, strg ser, trace vfg py
135528	554309	5515074	rep. chip	2.0	Unit 2, strg fol, trace vfg py
135529	554310	5515074	rep. chip	1.5	Unit 2, strg fol, trace mal, sil, 3-5% vfg py
135530	554311	5515075	rep. chip	1.0	Unit 2, strg fol, trace mal, sil, 3-5% vfg py
135531	554312	5515077	rep. chip	1.3	Unit 2, rusty, sil, 5-10% diss. py
135532	554311	5515077	rep. chip	1.3	Unit 2, rusty, sil, 3-5% diss. py
135533	554309	5515086	grab	-	Unit 2, sil, ser, 5-10% diss. py
135534	554314	5515066	grab		Unit 2, sil, ser, 5-10% diss. py
135535	554325	5515153	grab	-	Unit 4, sheared, bleached, rusty, 3-5% diss. py
135536	553895	5515154	grab	-	Qtz vein with yellow mineral, 1-2 % fg py
135537	553896	5515152	grab	-	Unit 2, strg sheared, 5-10% vfg diss py
135538	553953	5515077	grab	-	Unit 2, sil, with 3-5% vfg diss py
135539	554306	5514889	grab	-	Unit 2, sil, rusty, 2-4% diss py
135540	554331	5514884	grab	-	Unit 2 with qtz veins, trace vfg py, trace lim.
135541	554108	5515053	Grab	-	Unit 2, grey, strg sil, ~20% fg diss py

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Sample	Easting	Northing	Sample	Length	Description
No.	(UTM)	(UTM)	Type	(m)	
135542	554125	5515031	grab	-	Unit 2, strg sil, ~20% fg diss py
135543	554179	5515014	grab	-	Unit 2, strg sil, 10-15%diss py
135544	554069	5515113	grab	-	Chert, red-brown, well bedded, no py
135545	554080	5515001	grab	-	Unit 2, strg sil, ~10% fg diss py
135546	554078	5515095	grab	-	Unit 3, strg fol, fissile, trace vfg py
135547	554075	5515074	grab	-	Unit 2, sil, trace py
135548	554087	5515053	cont. chip	0.6	Unit 2/3, ser schist with qtz schist, gougy
135549	554091	5515043	grab	-	Unit 3, creamy ser schist, 3-5 % py
135550	554493	5514838	grab	-	Unit 2, sil, wk hem & lim, 1-2 % diss py
135551	554468	5514834	grab	-	Unit 4, wk bleaching, mod sheared, trace py
135552	554512	5514822	grab ·	-	Unit 2, very strg sil & hem, no py noted.
135553	554690	5514680	grab	-	Unit 4, wk sheared, trace lim, trace py
135554	554604	5514760	grab	_	Unit 3, ser schist, strg fol, fissile
135555	554603	5514898	grab	-	Unit 4, strg sheared, fissile, near main fault
135556	554669	551801	grab	-	Unit 4, bleached, lim, ox py, in old pit
135557	555681	5514872	float	-	Unit 2, sil, 10-15% py, float @ Fire Ck bridge
135558	555681	5514872	float	-	Unit 2, sil, 10-15% py, float @ Fire Ck bridge
135559	555681	5514872	float	_	Unit 2, sil, chert, 15-20% py, Fire Ck bridge
135560	554355	5515201	rep. chip	1.0	Unit 4, sheared/faulted, bleached, 1% vfg py
135561	554554	5515167	grab	-	Unit 4, sheared, rusty
135562	554655	5515151	float	-	Unit 4, strg silicified, rusty, 5-10% vfg py
135563	554677	5515159	float	-	Unit 4, strg silicified, rusty, 5-10% vfg py
135564	554672	5515164	float	_	Unit 4, strg silicified, rusty, 5-10% vfg py
135251	554217	5515115	grab	-	Qtz vein, rusty, no py.
135252	554205	5515133	grab	-	Unit 2 with chert, 3-5% diss. Py
135253	554258	5515101	grab	-	Unit 2, silicified, trace vfg py
135254	554331	5515032	grab	-	Unit 2, silicified, 2-3 % fg diss py
135255	553881	5515134	rep chip	0.55	Unit 2, sheared/faulted @ arg contact, rusty
135256	553884	5515127	grab	-	Unit 1, rusty
135257	553884	5515098	grab	-	Unit 2, 5-10% diss py
135258	554160	5515206	grab	-	Unit 2, mod fol, rusty
135259	554136	5515207	grab	-	Unit 4, blocky, possibly a dyke
135260	554111	5515230	grab	-	Unit 3, creamy sericite schist, no py noted
135261	554089	5515226	grab	-	Unit 3, creamy ser schist, strg fol, no py
135262	554049	5515245	grab	-	Unit 3, strg fol, rusty, 1% vfg py
135263	554013	5515258	grab	-	Unit 4, wk fol, wk bleached, 1-2 % vfg py
135264	554346	5515244	grab	-	Unit 4, fresh andesite
135265	554405	5515238	grab	-	Unit 4, veined with cpy, bn, mal
135266	554015	5515134	grab	-	Unit 2, sil, 3-5% diss py
135267	554012	5515126	grab	-	Unit 2, sil, 10-15% diss py
135268	554014	5515129	grab	-	Unit 3, strg ser, strg fol, 5% diss py
135269	554004	5515116	grab	-	Unit 3, strg ser, strg fol, 5% diss py

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Sample	Easting	Northing	Sample	Length	Description
No.	(UTM)	(UTM)	Туре	(m)	
135270	554038	5515089	grab	_	Unit 4, sheared
135271	554043	5515086	grab	-	Unit 2, wk fol, 2% diss py
135272	554041	5515082	grab	-	Unit 2, strg fol
135273	554049	5515077	talus	-	Unit 2 with scapolite?(yellow mineral)
135274	554432	5514880	grab	-	Unit 2, strg sil, wk fol, trace py
135275	554445	5514880	grab	-	Unit 2, strg sil, wk fol, trace py
135276	554443	5514871	grab	-	Unit 2, strg sil, wk fol, trace py
135277	554465	5514851	grab	-	Unit 2, strg sil, mod fol, trace py
135278	554505	5514823	grab	-	Unit 2, strg sil, cherty
135279	554518	5514844	grab	-	Unit 4 w qtz veins to 2 cm
135280	554490	5514917	grab	-	Unit 2, strg fol, rusty
135281	554560	5514916	grab	-	Unit 4, mod fol, green
135282	553786	5515422	grab	-	Unit 4, wk bleach, mod fol, 3% vfg diss py
135283	553710	5515540	grab	-	Unit 4, mod bleached
135284	553545	5515535	grab	-	Unit 4, bleached, sheared, 1-3 % vfg py
135285	553449	5515595	grab	_	Unit 4, bleached, sheared, strg fol, trace py
135286	554583	5514930	grab		Unit 4, very strg fol
135287	553864	5515240	grab	-	Unit 4, mod fol, 10% diss & fract py
135288	553901	5515241	grab	-	Unit 4, mod fol

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# Drill Core Sample Descriptions

Sample	Drill	From	Тө	Length	Description
No.	Hole	(m)	(m)		
135565	87-1	Box 12			Unit 2, clay alt, no py noted
135566	87-1	69.8	70.8	1.0	Unit 2 w chert, fol, from Box 15
135567	87-1	78.3	79.8	1.5	Unit 2, sil, 10% vfg diss py, from Box 17
135568	87-1	80.3	84.3	3.0	Unit 2, sil, 10% vfg diss py, from Box 18
135569	87-1	87.3	88.0	0.7	Unit 2, w 50% massive py interval to 7cm
135570	87-3	76.0	80.0	4.0	Unit 2/3, strg fol, gougy, trace vfg py, Box18
135571	87-3	128.4	132.6	4.2	Unit 3, very strg fol, trace vfg py, Box 30
135572	87-3	167.5	171.4	3.9	Unit 2, strg fol, poss cpy or bn, rusty
135573	87-5	4.40	4.90	0.5	Qtz vein, massive, trace py
135574	87-5	9.8	10.8	1.0	Unit 3, light yellow to white, very strg fol.
135575	87-7	64.9	69.0	4.1	Unit 2, wk clay alt, wk ser fol, trace py
135576	87.7	73.8	74.6	0.8	Qtz vein, white with vuggy py clots
135577	87-7	74.6	78.1	3.5	Unit 2, str fol
135578	Unknown	Unknown			Medium grained silicified dyke rock











