



## News Release

### **Alexco Further Expands Flame & Moth Deposit, Robust Silver Grades and Thicknesses Continue; New Discovery Adds Additional Potential**

**January 14, 2013 - Alexco Resource Corp. (NYSE-MKT:AXU, TSX:AXR)** today announced further expansion of the mineralized area of its Flame & Moth deposit within the Keno Hill Silver District in Canada's Yukon Territory upon completion of final results from the 2012 resource definition drilling program. Silver grades to 41.9 ounces per ton (opt) silver over 5.8 meters, and 23.3 opt silver over 10.9 meters true thicknesses continue to underscore the robust nature of the deposit, which still remains open down-plunge and down-dip to the south and west. The previously published Flame & Moth estimated resource comprises an indicated resource of 11.054 million ounces silver and an inferred resource of 3.882 million ounces silver (see news release dated June 28, 2012 entitled "Alexco Announces Initial Resource Estimates for Flame & Moth and Bermingham"). Results from the initial phase of the 2012 drilling program confirmed and expanded silver mineralization approximately 100 meters up-dip of the previously defined indicated resource, as well as identifying a second mineralized structure approximately 10 meters from the main vein (see news release dated October 9, 2012 entitled "Alexco Expands Flame & Moth Deposit: Results Up to 71 Ounces per Ton Silver Over 2.9 Meters, Mineralized Intervals to 7.4 Meters Grading 25.7 Ounces per Ton Silver, and Accompanying Gold, Lead and Zinc").

A revision of the Flame & Moth resource estimate is undergoing final review, with completion anticipated by the end of the first quarter of 2013. The results from the final 14 drill holes completed to target in 2012, with 4,634 meters of drilling, will extend and re-define the resource to the southwest and increase confidence in the resource both northeast and southwest of the Mill Fault (which bisects the deposit), bringing the total plan extent of the mineralized zone to approximately 600 meters along strike and 350 meters down-dip. The deposit remains open to the south and east, and also westerly up-dip toward surface at the northern extent of existing drilling. In addition, exploration drilling has identified a new discovery similar in appearance to the Flame Vein some 600 meters to the west-southwest of the Flame & Moth deposit. Here, a single drill hole intersected 10.7 opt silver, 1.7% lead and 0.5% zinc over a 0.85 meter interval, significantly expanding the area of potential mineralization likely related in some manner to the Flame & Moth deposit.

Alexco President and Chief Executive Officer Clynt Nauman said, "These final 2012 drill results from the Flame & Moth deposit area continue to demonstrate the continuity of thickness, the locally high silver grades, and the presence of gold with base metals in a mineralizing system that remains open. Following an updated resource analysis, in 2013 Alexco plans to start baseline geotechnical, metallurgical and environmental work, as well as preliminary engineering of the Flame & Moth deposit. This work will form the basis of a longer-term development strategy in the Keno Hill Silver District where we already have one mine in production, two additional mines slated for production in 2013, and a large tailings retreatment project currently in the final stages of preliminary economic analysis."

For ease of discussion, the Flame & Moth deposit is now divided into two zones, the Lightning Zone and the Christal Zone, respectively southwest and northeast of the Mill Fault. Selected 2012 final drill results for these two zones include the following significant composite or individual assay intervals (above 30 grams per tonne (gpt) silver):

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### Lightning Zone

- K-12-0432 intersected mineralized vein material over 10.94 meters true width from 309.91 meters with a composite assay of 798 gpt (23.3 opt) silver, 1.01 gpt gold; including 0.13 meters true width from 311.54 meters with an assay of 2,830 gpt (82.5 opt) silver, 2.76 gpt gold; and 0.89 meters true width from 314.57 meters with an assay of 2,990 gpt (87.2 opt) silver, 1.47 gpt gold.
- K-12-0450 intersected mineralized vein material over 4.83 meters true width from 297.47 meters with a composite assay of 729 gpt (21.3 opt) silver; including 0.23 meters true width from 298.42 meters with an assay of 2,460 gpt (71.8 opt) silver.
- K-12-0457 intersected mineralized vein material over 4.99 meters true width from 279.70 meters with a composite assay of 450 gpt (13.1 opt) silver; including 0.46 meters true width from 279.70 meters with an assay of 2,050 gpt (59.8 opt) silver.
- K-12-0482 intersected mineralized vein material over 2.87 meters true width from 234.10 meters with a composite assay of 439 gpt (12.8 opt) silver; including 0.21 meters true width from 236.91 meters with an assay of 2,230 gpt (65.0 opt) silver.

### Christal Zone

- K-12-0481 intersected mineralized vein material over 5.84 meters true width from 253.24 meters with a composite assay of 1,436 gpt (41.9 opt) silver, 1.04 gpt gold; including 0.47 meters true width from 254.48 meters with an assay of 2,470 gpt (72.0 opt) silver 4.02 gpt gold; and 0.47 meters true width from 254.99 meters with an assay of 2,220 gpt (64.8) silver, 2.70 gpt gold; and 0.74 meters true width from 257.52 meters with an assay of 5,120 gpt (149.3 opt) silver, 1.09 gpt gold.
- K-12-0467 intersected mineralized vein material over 4.29 meters true width from 201.29 meters with a composite assay of 525 gpt (15.3 opt) silver.

### **2012 Flame & Moth Geology Update and Results**

The completion of these additional 14 drill holes in the lower part of the mineralized zone bring the total drilling at the Flame & Moth prospect to 21,245 meters in 94 holes since discovery in 2010. The objective of the 2012 program was to provide confidence in the continuity of mineralization in order to progress engineering and environmental mine planning studies during 2013, as well as extend the deposit in both a lateral and up-dip direction.

The 2012 results have essentially confirmed the grades and thickness of the mineralized vein within the Lightning and Christal Zones as previously announced, and the increased drill density will also allow the definition of some higher grade silver and gold zones. In the Lightning Zone, 2012 results have expanded the zone of silver mineralization over a vertical distance of approximately 100 meters located above the previously defined indicated resource; in this upper area, a subparallel vein was also delineated with mineralization in each structure averaging about 3 to 3.4 meters true width with average silver grades of 13 to 20 opt (see news release dated October 9, 2012 entitled "Alexco Expands Flame & Moth Deposit: Results Up to 71 Ounces per Ton Silver Over 2.9 Meters, Mineralized Intervals to 7.4 Meters Grading 25.7 Ounces per Ton Silver, and Accompanying Gold, Lead and Zinc"). This work also extended the strike extent of the Lightning Zone over a distance of approximately 50 meters to the southwest. In the Christal Zone, 2012 results have provided confidence of continuity and grade with 30 to 40 meter



intercept drill spacings in the resource area, and also shown the vein structure developed to at least 400 meters below surface in one hole, although here it is less strongly mineralized.

## **Notes**

Updated composite assay tables, along with a drill hole location map and a long section plot, for 2012 drill holes completed at the Flame & Moth prospect are appended to this release, and are also available for review on the Company's website at [www.alexcoresource.com](http://www.alexcoresource.com).

The 2012 exploration drill program and sampling protocol has been reviewed, verified and compiled by Alexco's geologic staff under the supervision of Alan McOnie, Vice President, Exploration for Alexco and a Qualified Person as defined by National Instrument 43-101. A rigorous quality control and quality assurance protocol is used on the project, including blank, duplicate and standard reference samples in each batch of 20 samples delivered to the assay lab. Drill core samples were shipped to ALS Minerals Labs at Whitehorse, Yukon Territory for preparation, with fire assay and multi-element ICP analyses completed at the ALS Minerals facility in North Vancouver, British Columbia. The disclosure of scientific and technical information about Alexco's mineral projects contained in this news release has also been reviewed and approved by Mr. McOnie.

## **About Alexco**

Alexco Resource Corp. owns and operates the Bellekeno silver mine, one of several mineral properties held by Alexco which encompass substantially all of the historical Keno Hill Silver District located in Canada's Yukon Territory. Bellekeno, which commenced commercial production at the beginning of calendar year 2011, is Canada's only operating primary silver mine. The Keno Hill Silver District lies within the traditional territory of the First Nation of Na-Cho Nyak Dun who have a fully settled land claim agreement with the Government of Canada and the Yukon, and Alexco operates within the District under a comprehensive cooperation and benefits agreement with the First Nation. Alexco's primary near-term exploration objective is to unlock value in the silver-rich Keno Hill District, and is focused on growth by advancing its promising District properties to development decisions. The Company's goal is to produce 7 million to 10 million ounces of silver annually within the next decade. Employing a unique business model, Alexco also provides mine-related environmental services, remediation technologies and reclamation and mine closure services to both government and industry clients through the Alexco Environmental Group, its wholly-owned environmental services division.

## **Keno Hill Silver District History**

Between 1921 and 1988, the Keno Hill Silver District was a world-class silver producer, with more than 217 million ounces of silver produced at average grades of 40.5 ounces per ton silver, 5.6% lead and 3.1% zinc (Yukon Government's Minfile database). These historical production grades would rank Keno Hill in the top 3% by grade of today's global silver producers.

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*Some statements (“forward-looking statements”) in this news release contain forward-looking information concerning the Company’s anticipated results and developments in the Company’s operations in future periods, planned exploration and development of its properties, plans related to its business and other matters that may occur in the future, made as of the date of this news release. Forward-looking statements may include, but are not limited to, statements with respect to future remediation and reclamation activities, future mineral exploration, the estimation of mineral reserves and mineral resources, the realization of mineral reserve and mineral resource estimates, future mine construction and development activities, future mine operation and production, the timing of activities and reports, the amount of estimated revenues and expenses, the success of exploration activities, permitting time lines, requirements for additional capital and sources and uses of funds. Forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ from those expressed or implied by the forward-looking statements. Such factors include, among others, risks related to actual results and timing of exploration and development activities; actual results and timing of mining activities; actual results and timing of environmental services activities; actual results and timing of remediation and reclamation activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; future prices of silver, gold, lead, zinc and other commodities; possible variations in mineable resources, grade or recovery rates; failure of plant, equipment or processes to operate as anticipated; accidents, labour disputes and other risks of the mining industry; First Nation rights and title; continued capitalization and commercial viability; global economic conditions; competition; and delays in obtaining governmental approvals or financing or in the completion of development activities. Forward-looking statements are based on certain assumptions that management believes are reasonable at the time they are made. In making the forward-looking statements included in this news release, the Company has applied several material assumptions, including, but not limited to, the assumption that market fundamentals will result in sustained silver, gold, lead and zinc demand and prices. There can be no assurance that forward-looking statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. The Company expressly disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise, except as otherwise required by applicable securities legislation.*

## APPENDICES

**Table 1**

Drill Hole	Easting (m)	Northing (m)	Elevation (m)	Azimuth	Inclination	Depth (m)
K-12-0431	483871.84	7086531.24	910.40	264.0	-60.5	210.45
K-12-0432	484029.78	7086462.36	929.29	288.5	-46.5	356.13
K-12-0438	484029.62	7086460.16	929.41	264.0	-45.0	383.00
K-12-0442	484031.53	7086460.29	929.43	267.0	-82.0	482.00
K-12-0448*	484133.40	7086646.86	928.16	300.0	-51.0	20.00
K-12-0450	483968.42	7086492.43	924.94	255.0	-45.0	398.00
K-12-0451	484135.33	7086648.94	928.36	300.0	-51.0	287.00
K-12-0454*	484138.26	7086647.51	928.59	316.0	-46.0	53.45
K-12-0456*	484141.92	7086651.31	928.68	316.0	-46.0	19.00
K-12-0457	483967.59	7086493.11	924.97	260.0	-45.0	330.36
K-12-0462	483967.80	7086495.40	924.84	280.0	-49.0	281.00
K-12-0467	484072.46	7086587.13	923.84	312.0	-46.0	224.00
K-12-0469	484073.16	7086586.55	923.91	330.0	-59.0	290.00
K-12-0472	484077.06	7086590.06	923.96	266.0	-66.0	305.00
K-12-0476*	484128.73	7086642.68	927.92	321.0	-55.0	50.00
K-12-0479	484162.71	7086641.46	930.10	317.0	-52.0	347.00
K-12-0481	484161.41	7086641.27	929.86	308.5	-45.0	305.00
K-12-0482	483896.38	7086489.91	914.36	247.0	-45.0	293.00
K-12-0486	483191.57	7086418.22	875.97	290.0	-45.0	350.0

**Table 1**  
**Location of Flame & Moth Drill Holes Phase 2, 2012**

\* Denotes abandoned hole

Map Coordinate Projection UTM NAD83 Z8

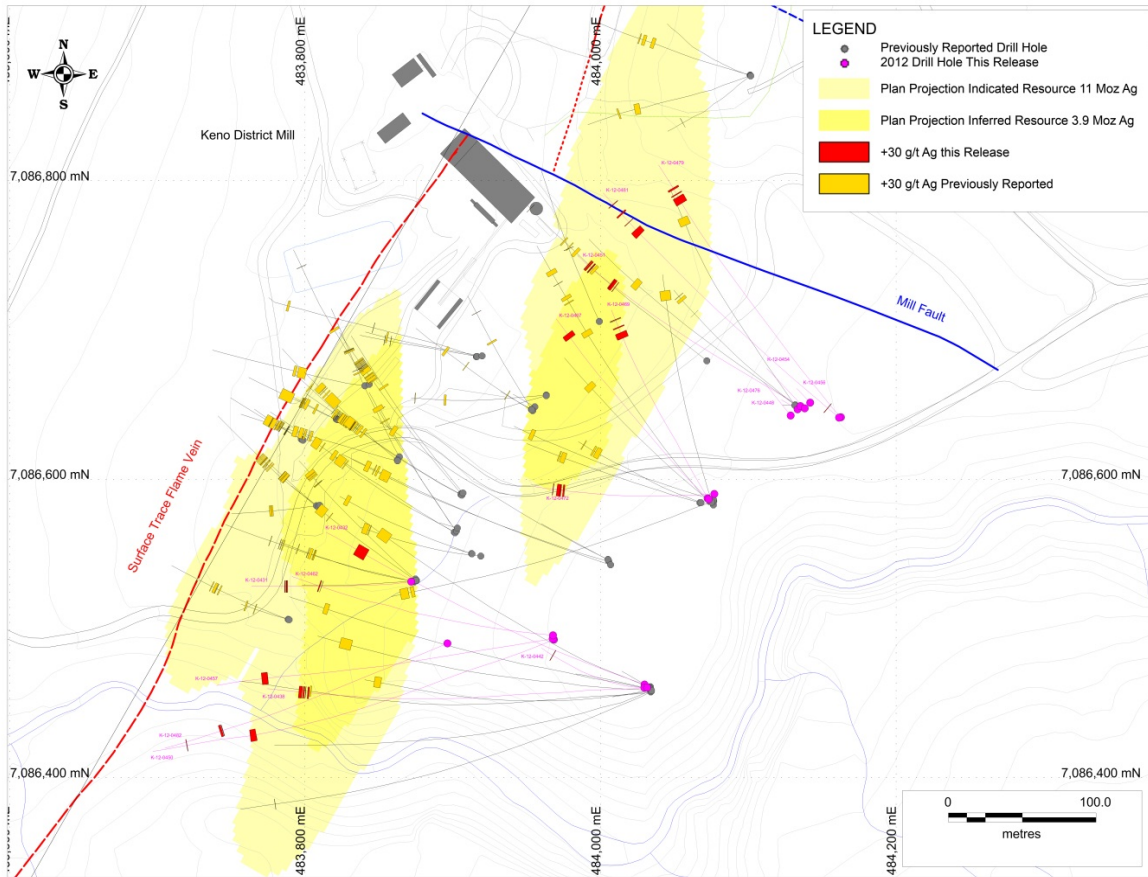
**Table 2**

<b>Drill Hole</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval (m)</b>	<b>True Width (m)</b>	<b>Ag (gpt)</b>	<b>Ag (oz/tonne)</b>	<b>Ag (oz/ton)</b>	<b>Au (gpt)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>
<b>K-12-0431</b>	164.26	168.05	3.79	3.10	168	5.41	4.91	0.18	0.75	3.16
<i>including</i>	164.43	164.74	0.31	0.25	534	17.17	15.58	0.10	2.77	3.97
<i>and</i>	165.88	166.41	0.53	0.43	651	20.93	18.99	0.72	0.79	7.67
<b>K-12-0432</b>	309.91	321.55	11.64	10.94	798	25.66	23.28	1.01	1.62	5.20
<i>including</i>	311.54	311.68	0.14	0.13	2,830	90.99	82.54	2.76	27.85	1.53
<i>and</i>	311.68	313.44	1.76	1.65	802	25.78	23.39	2.48	1.34	1.80
<i>and</i>	313.44	314.57	1.13	1.06	2,410	77.48	70.29	1.11	2.40	4.27
<i>and</i>	314.57	315.52	0.95	0.89	2,990	96.13	87.21	1.47	3.71	7.41
<i>and</i>	317.48	318.20	0.72	0.68	871	28.00	25.40	3.69	1.97	6.38
<b>K-12-0438</b>	339.75	350.09	10.34	9.27	38	1.22	1.11	0.03	0.09	0.66
<b>K-12-0442</b>	432.28	434.00	1.72	1.06	89	2.86	2.60	-0.01	0.01	0.04
<b>K-12-0450</b>	297.47	303.20	5.73	4.83	729	23.43	21.25	0.35	1.55	10.12
<i>including</i>	297.47	298.42	0.95	0.8	824	26.49	24.03	0.15	0.89	7.29
<i>and</i>	298.42	298.69	0.27	0.23	2,460	79.09	71.75	0.43	2.26	18.65
<i>and</i>	300.61	301.01	0.40	0.34	627	20.16	18.29	0.12	0.36	9.89
<i>and</i>	364.70	365.10	0.40	0.34	53	1.70	1.54	0.05	0.10	0.03
<i>including</i>	301.55	302.34	0.79	0.66	1,080	34.72	31.50	0.36	0.94	4.12
<i>and</i>	302.34	302.59	0.25	0.21	1,815	58.35	52.94	0.47	14.40	13.45
<b>K-12-0451</b>	235.56	241.68	6.12	5.59	192	6.16	5.59	0.41	0.45	0.73
<i>including</i>	238.83	239.41	0.58	0.53	870	27.97	25.38	0.87	2.91	0.08
<i>and</i>	266.92	272.87	5.95	5.35	106	3.41	3.09	0.02	0.91	0.70
<b>K-12-0457</b>	279.70	285.52	5.82	4.99	450	14.46	13.12	0.49	2.08	8.28
<i>including</i>	279.70	280.24	0.54	0.46	2,050	65.91	59.79	0.48	14.00	23.70
<i>and</i>	280.24	281.00	0.76	0.65	716	23.02	20.88	0.22	2.71	23.60
<i>and</i>	281.00	281.67	0.67	0.57	695	22.34	20.27	0.50	1.90	17.75
<b>K-12-0462</b>	248.55	248.64	0.09	0.08	136	4.37	3.97	0.58	5.41	5.85
<i>including</i>	250.23	251.10	0.87	0.81	56	1.78	1.62	0.03	0.74	1.16
<b>K-12-0467</b>	201.29	206.14	4.85	4.29	526	16.90	15.33	0.19	4.71	11.62
<i>including</i>	202.01	203.00	0.99	0.88	958	30.80	27.94	0.17	11.65	18.00
<i>and</i>	203.69	204.21	0.52	0.46	754	24.24	21.99	0.13	7.11	17.75
<i>and</i>	204.21	205.09	0.88	0.78	856	27.52	24.97	0.49	4.38	13.85



<b>K-12-0469</b>	247.67	256.14	8.47	6.17	297	9.54	8.66	0.48	1.37	1.81
<i>including</i>	252.70	253.40	0.70	0.51	628	20.19	18.32	0.16	3.86	2.33
<i>and</i>	253.40	253.68	0.28	0.2	1,440	46.30	42.00	0.09	20.29	6.00
	263.07	264.45	1.38	1.01	382	12.28	11.14	0.01	0.45	12.86
<i>including</i>	263.07	263.70	0.63	0.46	678	21.80	19.78	0.04	0.78	26.00
	274.09	275.50	1.41	1.03	64	2.06	1.87	0.10	0.12	0.64
<b>K-12-0472</b>	254.29	256.70	2.41	1.85	63	2.01	1.82	0.35	0.02	0.14
	259.85	266.91	7.06	5.41	128	4.11	3.73	0.33	0.18	2.02
	272.83	273.53	0.70	0.54	41	1.31	1.18	0.01	0.17	0.88
<b>K-12-0479</b>	295.26	303.73	8.47	6.85	70	2.25	2.04	0.10	0.33	4.15
	306.49	307.60	1.11	0.90	58	1.86	1.69	0.01	0.27	0.63
	313.37	315.34	1.97	1.59	57	1.85	1.68	0.05	0.16	2.54
<b>K-12-0481</b>	12.54	13.80	1.26	1.17	26	0.85	0.77	0.00	1.18	0.01
	253.24	259.54	6.30	5.84	1,436	46.17	41.89	1.04	2.63	2.16
<i>including</i>	254.10	254.48	0.38	0.35	799	25.69	23.30	1.74	4.79	2.05
<i>and</i>	254.48	254.99	0.51	0.47	2,470	79.41	72.04	4.02	2.19	1.15
<i>and</i>	254.99	255.50	0.51	0.47	2,220	71.37	64.75	2.70	1.41	0.12
<i>and</i>	255.50	256.03	0.53	0.49	1,850	59.48	53.96	1.56	1.68	1.29
<i>and</i>	256.37	256.68	0.31	0.29	952	30.61	27.77	0.27	4.49	2.20
<i>and</i>	257.00	257.52	0.52	0.48	945	30.38	27.56	0.40	1.77	1.72
<i>and</i>	257.52	258.32	0.80	0.74	5,120	164.61	149.33	1.09	8.15	4.66
	268.57	268.95	0.38	0.35	94	3.03	2.75	0.02	1.28	0.03
	278.54	279.88	1.34	1.24	91	2.91	2.64	0.06	0.18	0.43
	290.47	291.00	0.53	0.49	80	2.57	2.33	-0.01	1.43	5.07
<b>K-12-0482</b>	234.10	237.13	3.03	2.87	439	14.12	12.81	0.32	0.67	2.66
<i>including</i>	236.57	236.91	0.34	0.32	1,395	44.85	40.69	0.90	2.50	9.53
<i>and</i>	236.91	237.13	0.22	0.21	2,230	71.70	65.04	0.98	1.36	9.66

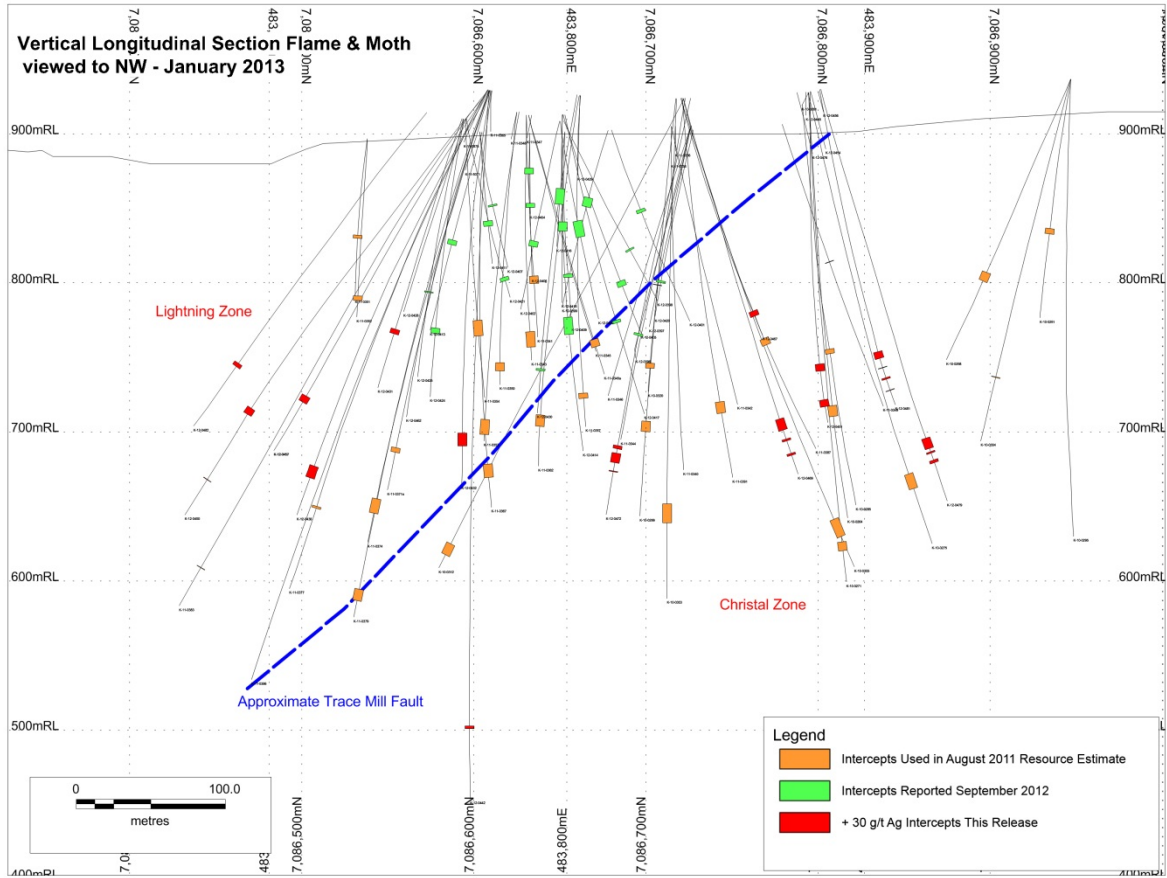
**Table 2**  
**Assay Composites Calculated for Flame & Moth Drill Holes Completed Phase 2, 2012**  
Using 30 gpt silver cut off with a maximum of 2 meters un-mineralized internal dilution for major intervals.



**Figure 1 Location of Drill Holes at Flame & Moth Prospect**

**Showing all composite intercepts > 30 gpt Ag**





**Figure 2 Longitudinal Section Flame & Moth Prospect showing greater than 30 gpt Ag composite assay intervals (viewed to the northwest)**