News Release

Alexco Drills 5 meters (True Width) of 7,462 grams per tonne Silver (240 ounces per tonne) at Bermingham, Along with Other Significant Silver Intercepts

September 17, 2015 - Alexco Resource Corp. (TSX:AXR, NYSE-MKT:AXU) today announced results from its 2015 drilling program at the Bermingham deposit in the Keno Hill Silver District in Canada's Yukon Territory.

Significant true width intercepts include 4.98 meters grading 7,462 grams per tonne ("g/t") (240.0 ounces per ton ("oz/t")) silver, 4.76 meters grading 2,357 g/t (75.8 oz/t) silver, 2.35 meters of 3,774 g/t (121.3 oz/t) silver and ranging down to 1.81 meters grading 794 g/t (25.5 oz/t) silver were returned from drill holes in the 2015 program.

Together with the high grade discovery intercept from the 2014 drill program (6.39 meters grading 5,667 g/t (182.2 oz/t)) silver, the 2015 drilling has now identified a high grade silver and gold bearing zone over at least 140 meters down-plunge across a width of approximately 40 meters. The zone averages 3.7 meters true thickness, is locally more than 5.5 meters thick and remains open both up dip and down dip.

Alexco President and CEO Clynt Nauman commented, "The discovery of this open ended, very high grade silver and gold bearing zone within the Bermingham area may be a game changer for the future of Keno Hill. Clearly, grades ranging from approximately 0.8 kilogram to more than 7.0 kilograms per tonne of silver with up to 2 g/t of gold over sizable true widths in several drill holes is a significant discovery. Although Keno Hill is historically known for the presence of local high grade zones, the style and tenor of this discovery is consistent with zones often associated within the largest and highest grade silver deposits in the District. Simply stated, this is a relatively shallow, very high grade discovery in the immediate neighborhood of large, high grade silver deposits; namely the adjacent Hector Calumet, Elsa and other historical deposits."

The 2015 exploration program totaled 2,595 meters focused on extension and expansion of the previously identified Bermingham resource. The Bermingham deposit, which has a current silver resource estimate (not including the most recent drill results) of 5.2 million ounces indicated (377,000 tonnes with average grade of 430 g/t) and 0.8 million ounces inferred (52,000 tonnes with an average grade of 477 g/t) (see news release dated April 29, 2015, entitled "Alexco Announces Indicated Silver Resource Estimate Increases of 17% at Flame & Moth and 37% at Bermingham, Resulting in a 10% Increase Overall for Keno Hill Silver District"). The deposit is located on Galena Hill approximately 1.1 km southwest of the historical Hector-Calumet mine, and approximately five kilometers east of the Flame & Moth deposit and District Mill. The Hector Calumet's historical production was 96 million ounces of silver at a reported average grade of approximately 1,090 g/t (39 oz/t).

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Bermingham Vein Drill Composite Assay Interval Highlights (Refer to Table 2 for complete results)

- **K-15-0580 :** intercepted 4.98 meters true width from 305.46 meters with a composite assay value of 7,462 g/t (239.9 oz/t) silver, including 3.65 meters true width from 306.89 meters with a composite assay of 10,186 g/t (327.5 oz/t) silver.

- **K-15-0582 :** intercepted 4.76 meters true width from 303.16 meters with a composite assay value of 2,357 g/t (75.8 oz/t) silver, that included 4.17 meters true width from 303.16 meters with a composite assay value of 2,686 g/t (86.4 oz/t) silver.

- **K-15-0583 :** intercepted 2.35 meters true width from 346.25 meters with a composite assay value of 3,774 g/t (121.3 oz/t) silver, that included 1.46 meters true width from 346.25 meters with a composite assay value of 6,049 g/t (194.5 oz/t) silver.

- **K-15-0576 :** intercepted 2.60 meters true width from 243.42 meters with a composite assay value of 1,129 g/t (36.3 oz/t) silver, that included 1.99 meters true width from 243.42 meters with a composite assay value of 1,471 g/t (47.3 oz/t) silver.

- **K-15-0577 :** intercepted 1.81 meters true width from 272.00 meters with a composite assay value of 794 g/t (25.5 oz/t) silver, that included a 0.79 meter true width from 273.41 meters with a composite assay value of 1,827 g/t (58.7 oz/t) silver.

This recently discovered high grade zone within the Bermingham deposit lies approximately 50 meters to the northeast of the existing Arctic Zone Resource in a position controlled by flexure in the vein-fault structure that is stratigraphically above the inferred unique stratigraphic and structural setting occupied by the adjacent Hector-Calumet mine (see news release dated November 5, 2014, entitled “Alexco Drills Best Hole Ever: Intersects 5,667 Grams Per Tonne Silver Over 6.39 Meters (true width) at Bermingham; Mineralization Extended and Remains Open”). Further exploration, specifically to follow the high grade mineralization both down plunge toward the more highly silicified stratigraphy, as well as up dip at least 200 meters into untested areas, is warranted. In terms of mineralogy, the high grade mineralized zone is characterized by the presence of the silver bearing mineral pyrargyrite in association with argentiferous galena, tetrahedrite freibergite and wire silver in a dominantly sideritic gangue.

Overall, the Bermingham mineralized system remains open in all directions, especially to the northeast where potential linkage to the Hector-Calumet mine remains to be resolved, but also to the southwest where there remains a kilometer of untested ground between the Bermingham prospect and the historical Coral Wigwam prospect.

Details of the drill holes are shown in Table 1 and composite assay grades and intervals, calculated at a 30 g/t silver cutoff restricted to include a maximum of two meters unmineralized dilution, used to identify the mineralized zones area shown in Table 2. The locations of the drill holes are shown in Figures 1 and 2.

Updated composite assay tables, along with a drill hole location map and a long section plot, for the drill holes reported here are appended to this release, and are available for review on the Company's website at www.alexcoresource.com.

Notes

The 2015 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 ("NI 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 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 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, was Canada's only operating primary silver mine from 2011 to 2013. Alexco is currently undergoing an interim suspension of operations at Bellekeno in order to decrease costs and reposition the District for long-term, sustainable operations. 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. 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 oz/t 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

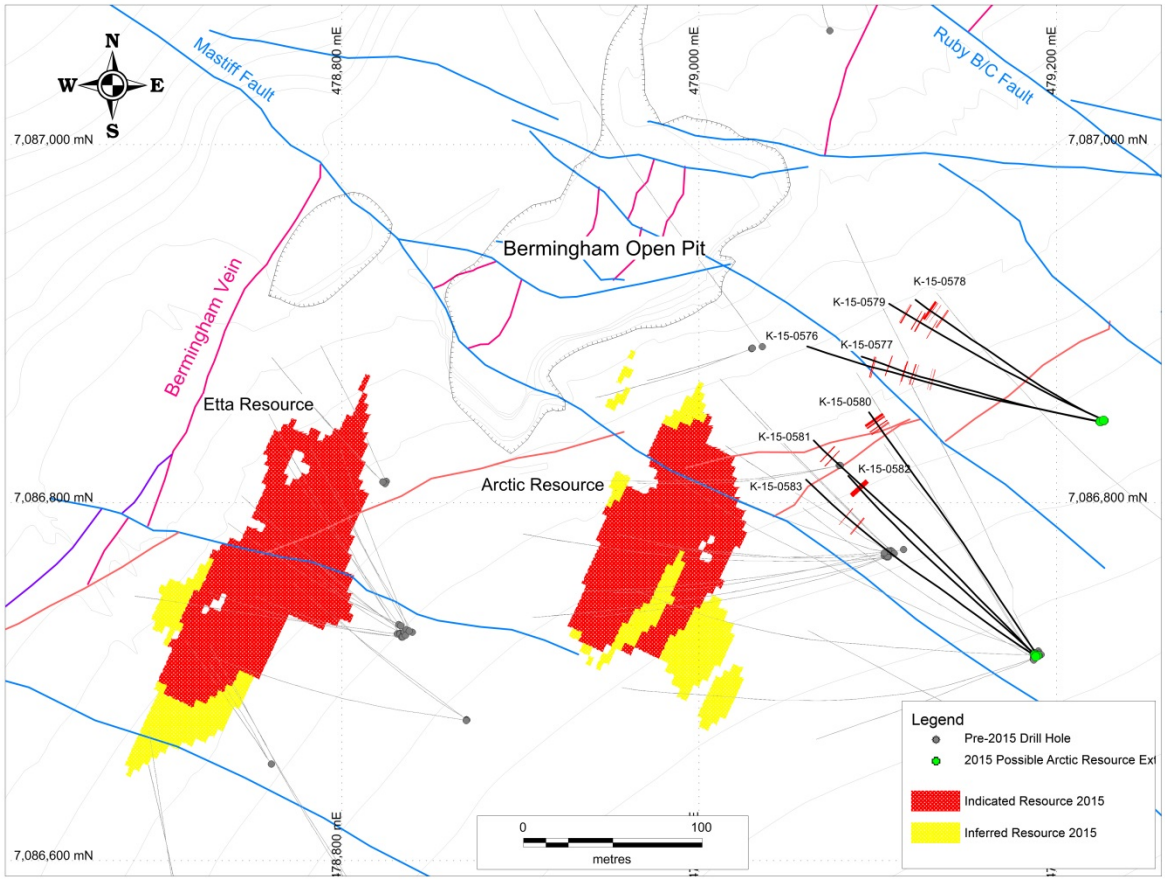

Figure 1

Location of Drill Holes at the Bermingham Prospect showing greater than 30 g/t silver composite assay intervals for all surface drill holes completed during 2015.

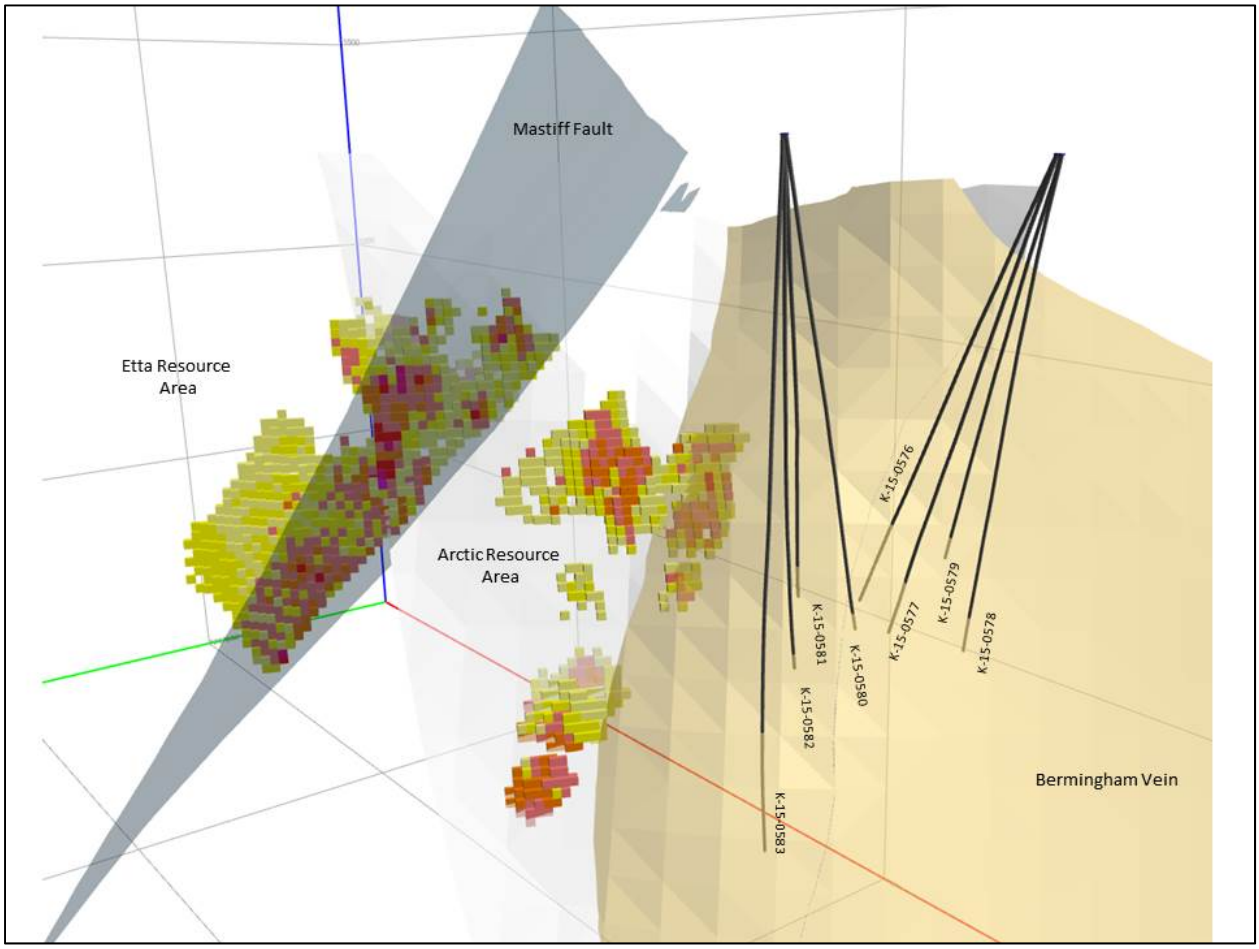

Figure 2

Oblique View to North showing location of surface drill holes completed at the Bermingham Prospect during 2015 in relation to the Resource Areas.

Table 1

Location of Bermingham drill holes completed in 2015.

Map Projection UTM NAD83 Zone 8

Hole	Easting	Northing	Elevation (m)	Length (m)	Surface Azimuth	Surface Dip
K-15-0576	479224.27	7086845.41	1341.34	314.00	281	-58
K-15-0577	479224.70	7086845.25	1341.39	308.00	281	-64
K-15-0578	479226.71	7086845.93	1341.28	311.89	297	-67
K-15-0579	479226.41	7086846.07	1341.28	269.00	297	-60
K-15-0580	479189.42	7086714.61	1351.27	320.00	325	-60
K-15-0581	479187.87	7086715.08	1351.21	311.00	315	-56
K-15-0582	479188.41	7086714.57	1351.28	326.00	315	-65
K-15-0583	479188.38	7086713.96	1351.23	446.00	308	-72

Table 2

Assay Composites Calculated for 2015 Bermingham Drill Holes

Using 30 g/t Ag cut-off with a maximum of 2 metres unmineralized dilution.

Units	m	*metres*
	g	*gram*
	t	*tonne*
	T	*short ton*
	%	*percent*

Hole	From (m)	To (m)	Interval (m)	True Width (m)	Ag (g/t)	Ag (oz/t)	Ag (oz/T)	Au (g/t)	Pb (ppm)	Zn (ppm)
K-15-0576	243.42	246.73	3.31	2.60	1,129	36.30	32.93	0.10	16,395	21,890
	including									
	243.42	245.96	2.54	1.99	1,471	47.3	42.90	0.13	21,365	28,526
	243.42	*243.58*	*0.16*	*0.13*	*1,945*	*62.53*	*56.73*	*0.09*	*25,700*	*35,100*
	243.78	*243.97*	*0.19*	*0.15*	*9,660*	*310.58*	*281.75*	*0.67*	*114,000*	*240,000*
	245.61	*245.96*	*0.35*	*0.27*	*4,200*	*135.04*	*122.50*	*0.55*	*77,900*	*39,700*
K-15-0577	272.00	274.49	2.49	1.81	794	25.53	23.16	0.08	59098	3,293
	including									
	273.41	274.49	1.08	0.79	1,827	58.74	53.29	0.19	136,039	6,914
	273.41	*273.57*	*0.16*	*0.12*	*1,330*	*42.76*	*38.79*	*0.15*	*103,000*	*33,300*
	273.81	*274.08*	*0.27*	*0.20*	*2,980*	*95.81*	*86.92*	*0.29*	*168,500*	*258*
	274.08	*274.49*	*0.41*	*0.30*	*2,310*	*74.27*	*67.37*	*0.21*	*206,400*	*553*
K-15-0578	280.16	290.03	9.87	6.98	322	10.35	9.39	0.04	4,026	7,105
	including									
	284.83	*285.67*	*0.84*	*0.59*	*1,200*	*38.58*	*35.00*	*0.14*	*11,150*	*452*
	287.00	*287.70*	*0.70*	*0.49*	*1,010*	*32.47*	*29.46*	*0.16*	*6,040*	*13,600*
	289.57	*289.86*	*0.29*	*0.21*	*3,250*	*104.49*	*94.79*	*0.30*	*34,400*	*52,800*
K-15-0579	230.00	235.34	5.34	4.15	237	7.62	6.91	0.01	943	809
	246.45	250.01	3.56	2.77	115	3.70	3.35	0.02	11,717	1,477

Hole	From (m)	To (m)	Interval (m)	True Width (m)	Ag (g/t)	Ag (oz/t)	Ag (oz/T)	Au (g/t)	Pb (ppm)	Zn (ppm)
K-15-0580	305.46	312.10	6.64	4.98	7,462	239.91	217.64	0.65	88,560	4,347
	including									
	306.89	311.75	4.86	3.65	10,186	327.48	297.09	0.87	120,335	5,412
	308.50	*308.75*	*0.25*	*0.19*	*4,890*	*157.22*	*142.62*	*0.45*	*40,700*	*8,640*
	309.10	*309.52*	*0.42*	*0.32*	*17,544*	*564.06*	*511.70*	*1.54*	*268,200*	*38,400*
	309.52	*310.00*	*0.48*	*0.36*	*26,953*	*866.57*	*786.12*	*2.27*	*531,000*	*3,290*
	310.00	*310.21*	*0.21*	*0.16*	*23,766*	*764.11*	*693.17*	*2.25*	*180,500*	*915*
	310.21	*310.38*	*0.17*	*0.13*	*29,310*	*942.35*	*854.87*	*2.14*	*351,500*	*284*
	310.38	*310.64*	*0.26*	*0.20*	*21,183*	*681.06*	*617.83*	*2.09*	*169,500*	*649*
	310.64	*311.06*	*0.42*	*0.32*	*11,459*	*368.40*	*334.22*	*0.87*	*75,800*	*3,140*
	311.06	*311.35*	*0.29*	*0.22*	*20,246*	*650.93*	*590.50*	*1.35*	*98,400*	*409*
	311.35	*311.75*	*0.40*	*0.30*	*4,150*	*133.43*	*121.04*	*0.30*	*9,060*	*355*
K-15-0581	283.31	284.35	1.04	0.81	98	3.13	2.86	0.07	68,200	1,110
	290.00	291.22	1.22	0.95	37	1.17	1.08	0.02	427	5,270
K-15-0582	303.16	309.80	6.64	4.76	2,357	75.78	68.75	0.29	53,384	41,164
	including									
	303.16	308.98	5.82	4.17	2,686	86.37	78.34	0.33	60,756	46,762
	305.78	*306.51*	*0.73*	*0.52*	*1,180*	*37.94*	*34.42*	*0.09*	*16,750*	*13,450*
	307.77	*308.18*	*0.41*	*0.29*	*21,089*	*678.04*	*615.09*	*2.79*	*306,500*	*139,000*
	308.18	*308.61*	*0.43*	*0.31*	*5,470*	*175.87*	*159.54*	*0.89*	*81,200*	*215,000*
	308.61	*308.98*	*0.37*	*0.27*	*6,330*	*203.52*	*184.62*	*0.52*	*426,500*	*65,300*
K-15-0583	346.25	349.73	3.48	2.35	3,774	121.34	110.07	0.41	112,882	16,626
	including									
	346.25	348.42	2.17	1.46	6,049	194.49	176.43	0.65	180,920	26,591
	368.08	369.03	0.95	0.64	80	2.56	2.33	0.13	884	1,170