



News Release

Alexco Intersects Silver Mineralization to 26 Meters True Thickness at Bermingham Including Narrower Intervals to 47.6 Ounces Per Ton Over 1.88 Meters

February 22, 2012 - Alexco Resource Corp. (TSX:AXR, NYSE-AMEX:AXU) today announced final results from its 2011 drilling program at the Bermingham property, located adjacent to the historical Hector-Calumet mine within the Keno Hill Silver District in Canada's Yukon Territory. The results indicate a complex structural setting within which broad zones of significant silver mineralization (typically 3 to 10 ounces per ton (oz/ton) silver over 4 to 26 meters thick) have been traced with confidence along strike for more than 400 meters and to a depth of at least 350 meters in two fault offset segments. The mineralization is open down plunge and along strike to the southwest. A mineral resource estimate is expected to be completed in the second quarter of this year for that portion of the Bermingham mineralized area where drill spacing permits.

Included in this release are intercepts, such as 10.36 meters (true width) of 363 grams per tonne (g/t) silver (10.6 oz/ton) that includes 1.88 meter (true width) at 1,634 g/t silver (47.65 oz/ton), which generally occur within much broader zones of anomalous geochemistry. Based on current experience in the Keno Hill area, this style of mineralization may represent a high level expression of deeper mineralization. Importantly, the currently defined mineralization at Bermingham occurs at a higher elevation in the mine stratigraphic sequence than the adjacent Hector-Calumet mine, where more than 90 million ounces of silver were historically extracted. In total, it is interpreted that the currently defined Bermingham mineralization is not only important from the perspective of near term potential resource development, but may also represent the upper part of a larger mineralized system not yet defined at depth.

Final 2011 Bermingham Drill Assay Highlights

A combination of 10 g/t silver cutoff and 30 g/t silver cutoff composite assay grades (restricted to include a maximum of two meters unmineralized internal dilution) has been used to identify the broader mineralized zones and higher grade zones respectively within the Bermingham veined complex. All intervals are adjusted to reflect true thickness. A table of composite drilling results is appended to this news release. However, the following are some significant drill hole intercepts:

- **K-11-0388** intersected the Bermingham and Bermingham Footwall veins within a 26.3 meter wide structural zone from 155.53 meters that averages 158 g/t silver (4.89 oz/ton). This incorporates an intersection of the Bermingham Vein over 9.48 meters from 155.53 meters containing 214 g/t silver (6.25 oz/ton) and includes 0.50 meters at 774 g/t silver (22.58 oz/ton); a splay vein off the Bermingham Vein that grades 301 g/t silver (8.78 oz/ton) over 0.30 meters from 172.34 meters; and the Bermingham Footwall Vein over 3.66 meters from 184.63 meters at 511 g/t silver (14.90 oz/ton).
- **K-11-0389** intersected the Bermingham Vein over 4.86 meters from 189.20 meters with an assay grade of 250 g/t silver (7.29 oz/ton) that included the high-grade interval assaying 1,490 g/t silver (43.46 oz/ton) over 0.44 meters from 189.82 meters. At a depth of 209.00 meters, a splay vein assaying 88 g/t silver (2.56 oz/ton) is developed over a width of 5.17 meters. And below that, the

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Birmingham Footwall Vein assays 121 g/t silver (3.54 oz/ton) over a width of 3.25 meters from 221.77 meters.

- **K-11-0390** intersected the Birmingham Vein over 8.99 meters from 169.15 meters and assayed 112 g/t silver (3.26 oz/ton); and a splay vein over 0.35 meters from 189.90 meters that assayed 1,995 g/t silver (58.19 oz/ton).
- **K-11-0392** intersected the Birmingham Vein over 10.36 meters from 176.36 meters assaying 363 g/t silver (10.60 oz/ton), that included a high-grade interval assaying 1,634 g/t silver (47.65 oz/ton) over 1.88 meters from 176.36 meters.
- **K-11-0394** intersected the Birmingham Footwall Vein over 9.54 meters from 215.71 meters with an assay value of 155 g/t silver (4.51 oz/ton) that included 4.37 meters from 219.75 meters that graded 317 g/t silver (9.24 oz/ton), within which 0.78 meters from 226.08 meters assayed 1,263 g/t silver (36.83 oz/ton).
- **K-11-0395** intersected the Birmingham structure over 4.04 meters from 184.10 meters that graded 325 g/t silver (9.48 oz/ton) and includes 2.62 meters from 186.00 meters assaying 495 g/t silver (14.43 oz/ton), with the 0.71 meter interval from 186.00 meters assaying 1,651 g/t silver (48.16 oz/ton). Immediately below this a splay vein assayed 340 g/t silver (9.92 oz/ton) over 1.48 meters from 195.75 meters and this includes the 0.41 meter interval from 197.18 meters assaying 1,180 g/t silver (34.42 oz/ton).

2011 Birmingham Geology Update and Results

These results complete the assays from the 2011 diamond drilling program that comprised 25 drill holes for a total of 6,888 meters. The results of the final 12 drill holes for 3,473 meters completed since the end of October 2011, which are reported here, are in addition to those previously announced (see news release dated December 8, 2011 entitled “Alexco Intersects Multiple Zones of Silver Mineralization to 22.2 Meters True Thickness With Narrower Intervals To 141 Ounces Per Ton Silver Over 1.0 Meters at Birmingham”).

The Birmingham mineralized area lies within a structurally complex zone with several generations and styles of splaying mineralized veins that are disrupted by a number of post-mineral faults. The prospect generally encompasses the area below the historical Birmingham open pit mine and lies adjacent to historical underground exploration development on the Ruby Vein system. It is also located approximately 1.5 kilometers along strike to the southwest of the historical Hector-Calumet mine workings. From a metallogenic perspective, the 2011 drilling campaign confirms the Birmingham mineralization to be relatively silver rich, with a relatively low base metal content (combined lead-zinc generally less than 5%).

The prospectivity of the area is considered to be significant based on a number of factors, including the presence of strongly developed district scale structures which typically host laterally and vertically extensive mineralized quartz and siderite vein systems, which in turn host many high grade intervals. In addition, the currently drilled mineralized areas are within the higher levels of the favourable Keno Hill Quartzite host unit and are also stratigraphically higher than the nearby Hector-Calumet mine. The relatively low base metal content of the Birmingham area may additionally support the interpretation that Birmingham is the higher level expression of a deeper, possibly more base metal rich, silver mineralized system.



The 2011 drilling of the major mineralized structures at Bermingham concentrated on three areas:

- The hangingwall of the cross-cutting Mastiff Fault, where drill results over approximately 300 meters of strike confirm the continuity of mineralized veining and vein splays with the system developed to at least 350 meters depth. The central part of this zone has drill intercepts at sufficient density to permit a resource estimation to be undertaken. This zone remains open along strike and down-plunge to the southwest.
- The footwall of the Mastiff Fault in a fault bounded panel (which contains approximately 100 meters of mineralized strike extent) that lies below the historical Bermingham open pit, where five wide-spaced drill holes have been completed to a depth of 400 meters. These holes demonstrate continuity of silver mineralization open at depth.
- Further northeast, preliminary drilling has tested for the extensions of the Ruby, Townsite and Hector-Calumet vein systems, and geologic modeling for these is ongoing.

The assay data in the appended Table 2 has been structured to demonstrate the significant widths of anomalous silver mineralization, through the use of both 10 g/t silver cutoff and 30 g/t silver cutoff composite grade estimates. In places, where structures and intervals are in relatively close proximity, aggregated assay intervals between these composite intervals can produce weight averaged grades such as 158 g/t silver (4.89 oz/ton) over the 33.87 meter interval (26.30 meter true width) from 155.53 meters in K-11-0388, and 64 g/t silver (1.86 oz/ton) over the 57.68 meter interval (37.84 meter true width) from 170.44 meters in K-11-0389. These results demonstrate the considerable significance of anomalous metal content at what is interpreted to be relatively high elevation in a possibly much larger mineralized system.

Updated composite assay tables, along with a drill hole location map and a long section plot, for the 12 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 2011 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 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. 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 of exploration and development activities; actual results of mining activities; actual results of consulting activities; actual results 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

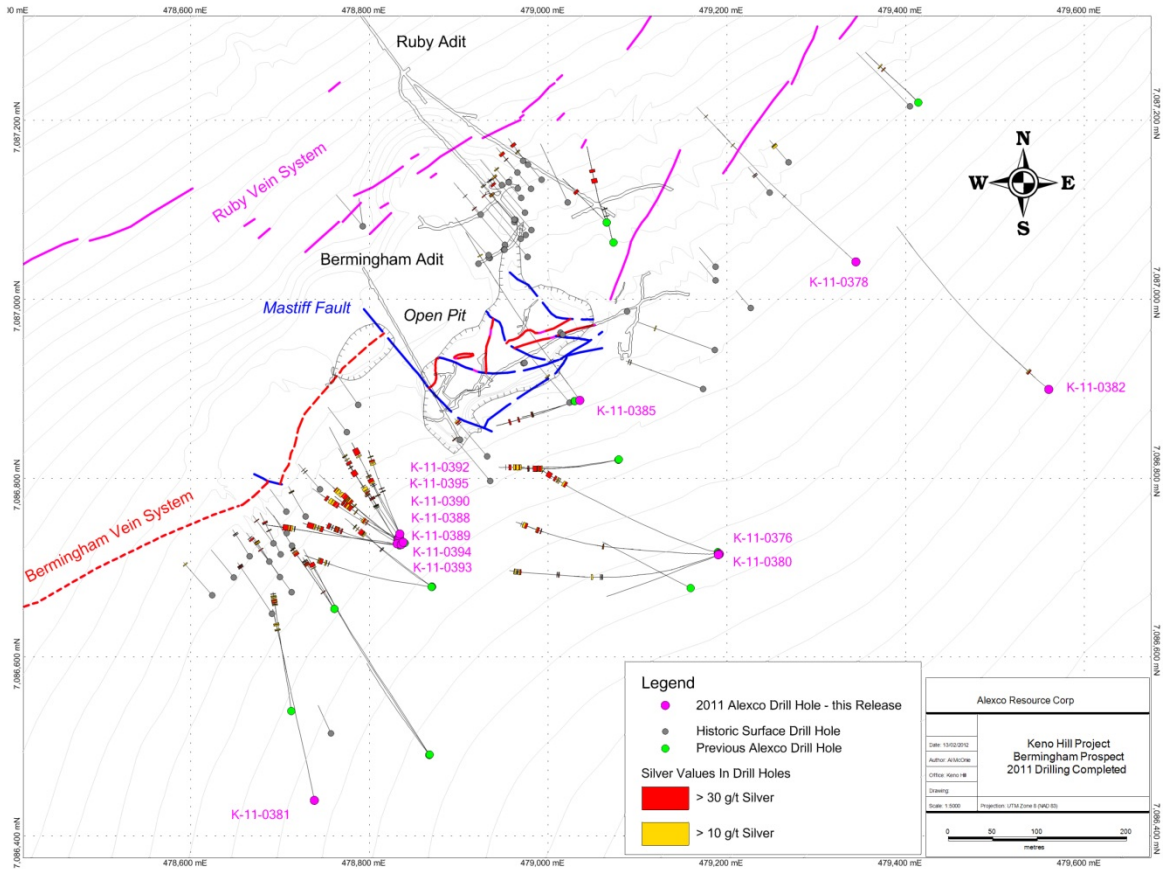


Figure 1

Location of Drill Holes at the Birmingham Prospect showing greater than 10 g/t and greater than 30 g/t silver composite assay intervals for all surface drill holes at the Birmingham Prospect as completed to December 2011.

Holes reported in this Press Release identified by magenta titles.

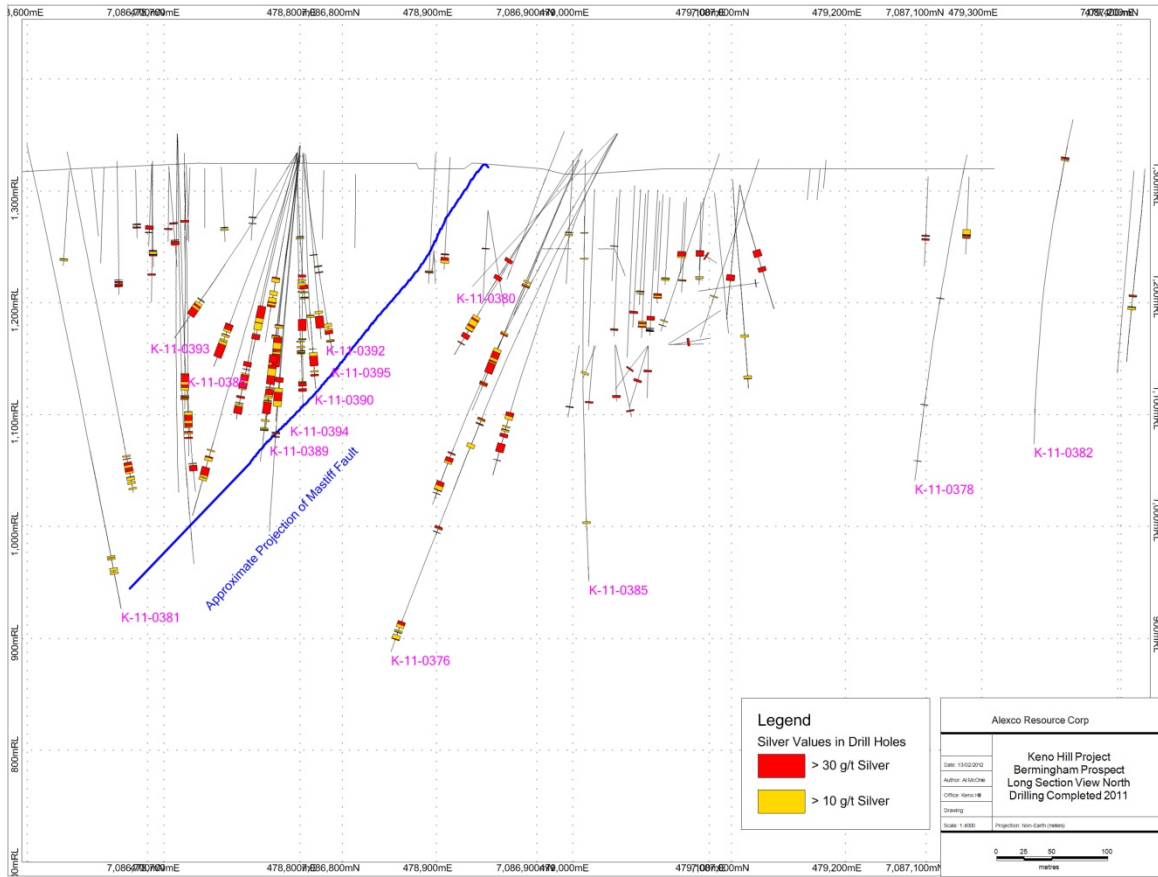


Figure 2

Longitudinal Section showing greater than 10 g/t and greater than 30 g/t silver composite assay intervals for all surface drill holes at the Birmingham Prospect as completed to December 2011.

Holes reported in this Press Release identified by magenta titles.



Table 1

Location of Bermingham drill holes completed at October – December 2011.

Map Projection UTM NAD83 Zone 8

Drill Hole	Easting (m)	Northing (m)	Elevation (m)	Azimuth	Inclination	Depth (m)
K-11-0378	479344.38	7087042.05	1332.51	310.00	-50	383.00
K-11-0380	479190.42	7086714.53	1351.32	245.00	-45	191.00
K-11-0381	478738.32	7086439.73	1341.68	348.00	-61	469.00
K-11-0382	479560.30	7086899.30	1364.04	310.00	-50	383.00
K-11-0385	479035.41	7086887.23	1327.68	300.00	-58	440.00
K-11-0388	478831.92	7086731.92	1332.35	294.00	-62	226.00
K-11-0389	478832.40	7086732.59	1332.17	300.00	-73	260.00
K-11-0390	478833.46	7086734.70	1332.11	324.00	-62	239.00
K-11-0392	478834.20	7086737.47	1333.09	338.00	-57	202.00
K-11-0393	478831.11	7086726.74	1332.17	275.00	-50	221.00
K-11-0394	478835.69	7086725.87	1334.22	300.00	-79	246.59
K-11-0395	478837.68	7086728.33	1334.23	340.00	-59	212.00



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K-11-0389	10	170.44	173.75	3.31	2.02	Aho	15.84	0.51	0.46	0.06	0.13	0.35
	30	170.44	171.39	0.95	0.58	Aho	38.40	1.23	1.12	0.13	0.05	0.29
	10	189.20	216.88	27.68	18.16	Bermingham	106.03	3.41	3.09	-0.01	0.33	1.08
	30	189.20	196.61	7.41	4.86	Bermingham	250.04	8.04	7.29	0.02	0.75	2.16
<i>including and including</i>		<i>189.82</i>	<i>190.49</i>	<i>0.67</i>	<i>0.44</i>		<i>1,490.00</i>	<i>47.90</i>	<i>43.46</i>	<i>0.07</i>	<i>4.52</i>	<i>14.15</i>
		<i>192.06</i>	<i>192.20</i>	<i>0.14</i>	<i>0.09</i>		<i>1,035.00</i>	<i>33.28</i>	<i>30.19</i>	<i>0.04</i>	<i>6.98</i>	<i>9.01</i>
	30	198.95	202.04	3.09	2.03	Bermingham Splay	72.28	2.32	2.11	0.03	0.34	0.95
	30	209.00	216.88	7.88	5.17		87.66	2.82	2.56	0.00	0.22	0.94
	10	219.78	220.63	0.85	0.56	Bermingham Splay	11.10	0.36	0.32	0.03	0.08	0.24
	10	221.77	228.12	6.35	4.09	Bermingham FW	98.71	3.17	2.88	0.01	0.13	0.29
	30	221.77	226.81	5.04	3.25		121.25	3.90	3.54	0.01	0.14	0.24
K-11-0390	30	122.89	125.17	2.28	1.72	Aho	159.77	5.14	4.66	0.09	4.92	0.89
	10	127.43	129.62	2.19	1.68		10.80	0.35	0.32	0.09	0.03	0.13
	10	131.00	136.96	5.96	4.56		15.01	0.48	0.44	0.11	0.02	0.10
	10	140.00	141.06	1.06	0.81		12.70	0.41	0.37	0.01	0.31	0.32
	30	169.15	180.88	11.73	8.99	Bermingham	111.76	3.59	3.26	0.04	0.62	0.67
	10	189.19	190.35	1.16	0.91	Bermingham FW Splay	780.98	25.11	22.78	0.04	1.40	1.46
	30	189.90	190.35	0.45	0.35		1,995.00	64.14	58.19	0.10	3.57	3.59
K-11-0392	30	108.88	109.40	0.52	0.42	Aho	229.00	7.36	6.68	0.15	0.08	0.08
	10	171.22	173.65	2.43	1.98		19.20	0.62	0.56	0.04	0.19	0.63
	30	176.36	189.21	12.85	10.36	Bermingham	363.41	11.68	10.60	0.04	1.64	1.09
<i>including and including</i>		<i>176.36</i>	<i>178.69</i>	<i>2.33</i>	<i>1.88</i>		<i>1,633.87</i>	<i>52.53</i>	<i>47.65</i>	<i>0.10</i>	<i>8.27</i>	<i>2.78</i>
		<i>188.93</i>	<i>189.21</i>	<i>0.28</i>	<i>0.23</i>		<i>1,390.00</i>	<i>44.69</i>	<i>40.54</i>	<i>0.05</i>	<i>3.40</i>	<i>8.15</i>
K-11-0393	10	173.56	174.62	1.06	0.97	Bermingham Splay	222.44	7.15	6.49	0.10	0.27	0.58
	30	173.56	174.04	0.48	0.44		465.19	14.96	13.57	0.11	0.51	0.88
	10	177.35	193.11	15.76	13.81	Bermingham ?	60.80	1.95	1.77	0.02	0.25	0.74
	30	180.22	182.35	2.13	1.86	Bermingham FW Splay	98.02	3.15	2.86	0.02	0.47	0.35
	30	184.45	193.11	8.66	7.57	Bermingham FW	77.93	2.51	2.27	0.02	0.25	1.05
K-11-0394	30	205.92	210.14	4.22	2.24	Aho	157.62	5.07	4.60	0.12	1.18	2.47
	10	215.71	232.51	16.80	9.54	Bermingham FW	154.68	4.97	4.51	0.03	0.38	1.22
	30	219.75	227.45	7.70	4.37		316.70	10.18	9.24	0.05	0.60	2.17
<i>including</i>		<i>226.08</i>	<i>227.45</i>	<i>1.37</i>	<i>0.78</i>		<i>1,262.68</i>	<i>40.60</i>	<i>36.83</i>	<i>0.16</i>	<i>2.00</i>	<i>3.91</i>



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K-11-0395	10	118.23	119.21	0.98	0.76	Aho	25.67	0.83	0.75	0.22	0.41	0.23
	30	118.23	118.54	0.31	0.24		53.50	1.72	1.56	0.67	0.68	0.08
	10	124.47	125.50	1.03	0.79	Aho	183.21	5.89	5.34	0.14	5.48	0.10
	30	124.69	125.50	0.81	0.62		227.00	7.30	6.62	0.14	6.85	0.11
	10	178.87	182.00	3.13	2.34		17.05	0.55	0.50	0.02	0.20	0.43
	10	184.10	189.50	5.40	4.04	Birmingham	325.12	10.45	9.48	0.05	1.29	0.89
	30	186.00	189.50	3.50	2.62		494.79	15.91	14.43	0.06	1.90	1.13
<i>including</i>		186.00	186.95	0.95	0.71		1,651.20	53.09	48.16	0.12	6.58	2.32
	10	195.75	197.73	1.98	1.48	Birmingham Splay	340.07	10.93	9.92	0.02	0.40	0.79
	30	197.00	197.73	0.73	0.54		899.78	28.93	26.24	0.02	0.94	1.69
<i>including</i>		197.18	197.73	0.55	0.41		1,180.00	37.94	34.42	0.03	1.13	2.03