



ASX ANNOUNCEMENT

ASX : CXO

19th March 2013

High Grade Lead-Zinc-Silver Assays from S.A. Project

HIGHLIGHTS

- Up to 567 g/t silver and 15.11 % combined lead and zinc assays from sampling of old workings and newly discovered gossans on EL 5015 in S.A.
- High grades from gossans discovered at surface suggest mineralisation is more extensive than historical workings.
- Mineralised breccia hosted within fault zones interpreted to be up to 1.5km long.
- High grade mineralisation identified in at least 5 individual structures to date.

Core Exploration Limited (ASX:CXO) is pleased to announce new high-grade silver, lead and zinc rock chip assays from EL 5015 “Yerelina”, which covers a 1,000km² area adjacent to the Company’s Fitton Project in northern South Australia.

Core’s latest mapping campaign has discovered high grade silver, lead and zinc mineralisation extending over 1 kilometre away from historical workings on EL 5015.

The Yerelina project is highly prospective for shallow base and precious metal mineralisation as evidenced by high grade mineralisation on five separate north-south structures identified by Core.

Assay results also show that high grade mineralisation continues between and beyond the historic mineralisation, which was of initial interest to Core. Of the 38 samples taken along a 1 km section of fault zone at Great Gladstone, 34 returned combined lead and zinc values in excess of 1% and over 1 g/t silver with the best assay at 15.11% combined lead and zinc. Silver values peaked at 567 g/t (Figure 1).

Two new locations with historic workings were identified from satellite imagery at Great Northern and Great Northern East (Figure 2). High grade silver-lead mineralisation was identified at Great Northern East with best results of 229 g/t silver and 11.8% lead.

A summary of the best results listed below in Table 1 and expanded in Appendix 1.

Name	Easting	Northing	Prospect	Ag g/t	Pb ppm	Zn ppm	Pb+Zn%
1016	328227	6672672	E Great Northern	92.7	48337	755	4.91
1017	328227	6672672	E Great Northern	228.9	117658	1502	11.92
1030	330134	6673284	Great Gladstone	98.1	45318	15644	6.1
1037	330160	6673345	Great Gladstone	5.1	11111	83082	9.42

Name	Easting	Northing	Prospect	Ag g/t	Pb ppm	Zn ppm	Pb+Zn%
1038	330165	6673369	Great Gladstone	6.3	3540	147548	15.11
1044	330169	6673447	Great Gladstone	23	20428	19091	3.95
1045	330151	6673509	Great Gladstone	53.4	18563	8059	2.66
1046	330151	6673509	Great Gladstone	47	40100	10907	5.1
1047	330160	6673478	Great Gladstone	57.8	50679	25632	7.63
1048	330160	6673478	Great Gladstone	332.6	101093	19475	12.06
1049	330158	6673490	Great Gladstone	567	109212	15584	12.48
1050	330142	6673564	Great Gladstone	284.1	68912	27119	9.6
1052	330138	6673576	Great Gladstone	95.5	51626	21729	7.34
1053	330138	6673576	Great Gladstone	82.4	45342	19783	6.51
1055	330138	6673647	Great Gladstone	231.1	112595	34211	14.68
1056	330139	6673671	Great Gladstone	82.4	60057	14545	7.46
1058	330173	6673879	Great Gladstone	132.1	27122	60505	8.76
1059	330173	6673879	Great Gladstone	98.3	18492	56304	7.48
1060	330173	6673879	Great Gladstone	57.5	15114	20832	3.59
1063	330186	6674181	Great Gladstone	2.5	539	41034	4.16

Table 1. Summary of rock chip data from EL 5015 Yerelina. All results with combined lead and zinc assays above 1% and/or silver assays above 1 g/t are listed in Appendix 1.

The recently completed field mapping and sampling was aimed at identifying extensions to the previously identified mineralisation at historical workings within the tenement. Numerous samples were taken along strike from historical workings at Great Gladstone and to the north of Big Hill to test for extensions of mineralisation at surface (Figure 2).

Additional mineralisation was identified 1.9 km to the north of Big Hill. Outcropping gossan at this location assayed at 2.94% combined lead and zinc and 15.8 g/t silver.

Four historical workings, operating in the late 19th and early 20th century, are recorded from within EL 5015 (Figures 2 & 3). These old workings are located in an apparent east – west trend over 8 kilometres (Figure 2). The limited documented information about the historical workings indicates that high grades of silver (Ag) and lead (Pb) were mined to a maximum depth of no more than 30m.

Silver-lead-zinc mineralisation within the Yerelina Project occurs within the core of an east-west trending synform within discrete north-south trending fault zones within fault fill breccia. The geological setting combined with metal assemblage suggests affinities with Mississippi Valley Type or Sedimentary Exhalative style silver-lead-zinc mineralisation.

Core's analysis of modern satellite imagery and the Company's recently completed detailed heli-borne magnetic and radiometric survey data have identified that these workings are hosted by a large scale system of repeated north/south regional structures over many kilometres (Figure 2).



Future Work Program

Core Exploration is in the process of undertaking gravity surveys over areas of known outcropping mineralisation. Samples of mineralised rock from mine workings and mineralised gossans are relatively dense compared to the host rock, which are composed of dolomites and shales.

Gravity anomalies identified in association with mineralised structures represent immediate drill targets.

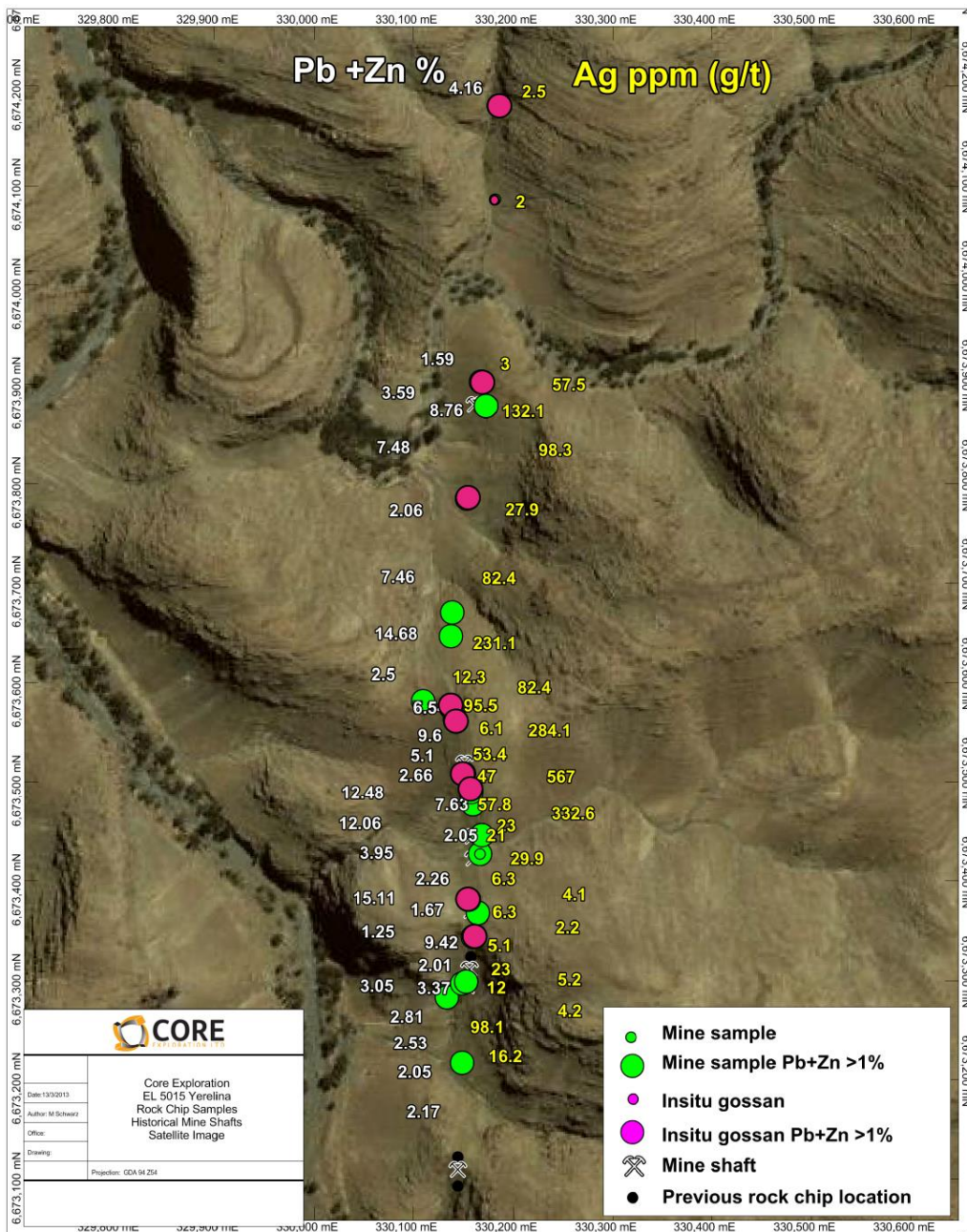


Figure 1. Outcrop samples with significant silver, lead and zinc assays at Great Gladstone historic workings overlain on satellite image, EL 5015.

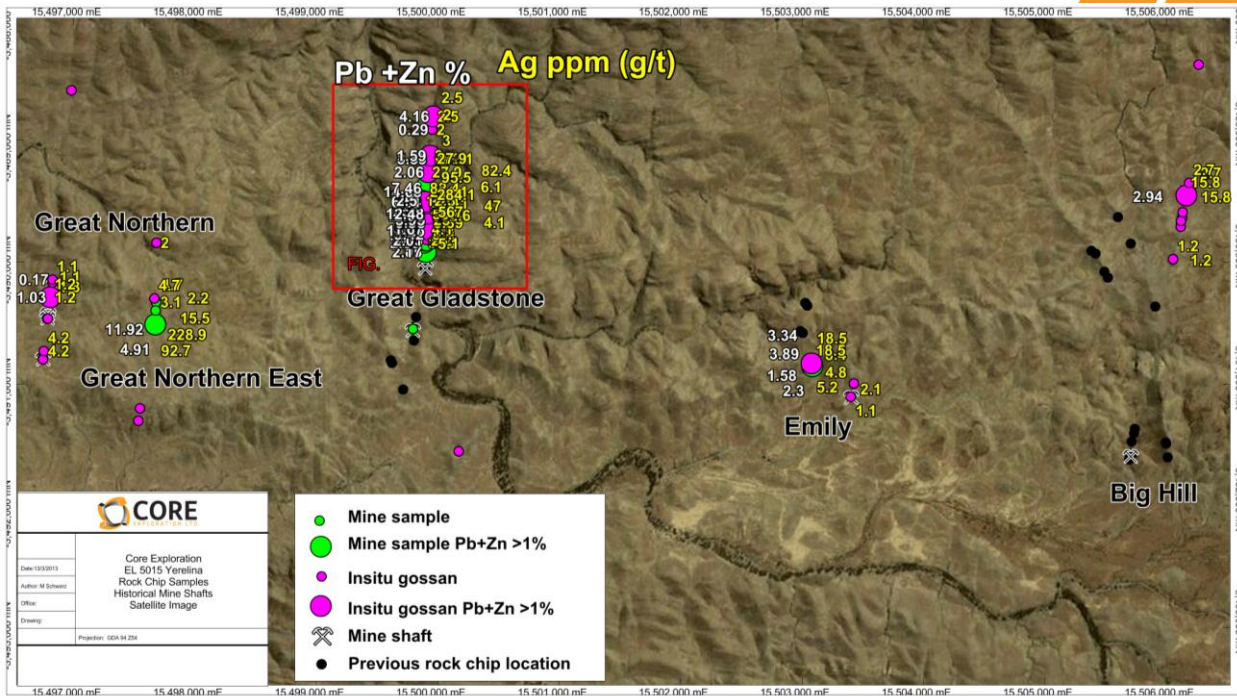


Figure 2. Outcrop samples with significant silver, lead and zinc assays and historic working locations overlain on satellite image, EL 5015.

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The information in this report has been compiled by Stephen Biggins (BSc(Hons)Geol, MBA) as Managing Director of Core Exploration Ltd and who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. As a Competent Person, he has a minimum of 5 years relevant experience in the style of mineralisation and types of activities being reported and has given written consent to the above report in the form and context in which it appears.


APPENDIX 1:
Rock chip data from EL 5015 Yerelina with combined lead and zinc assays above 1% and/or silver assays above 1 g/t.

Name	Easting	Northing	Prospect	Ag g/t	Pb ppm	Zn ppm	Pb+Zn%
1005	327434	6672472	Great Northern	4.2	24	1936	0.2
1010	327475	6672854	Great Northern	1.2	7144	3146	1.03
1012	327491	6672959	Great Northern	1.8	101	1859	0.2
1014	327489	6672981	Great Northern	1.1	818	900	0.17
1016	328227	6672672	E Great Northern	92.7	48337	755	4.91
1017	328227	6672672	E Great Northern	228.9	117658	1502	11.92
1018	328229	6672773	E Great Northern	15.5	2489	1135	0.36
1019	328229	6672833	E Great Northern	3.1	761	4793	0.56
1020	328229	6672833	E Great Northern	2.2	334	6837	0.72
1021	328219	6672857	E Great Northern	4.7	724	2570	0.33
1022	328226	6673254	E Great Northern	2	34	326	0.04
1028	330149	6673218	Great Gladstone	0.5	6555	13916	2.05
1029	330149	6673218	Great Gladstone	<0.01	7124	14589	2.17
1030	330134	6673284	Great Gladstone	98.1	45318	15644	6.1
1031	330134	6673284	Great Gladstone	16.2	17277	8070	2.53
1032	330149	6673298	Great Gladstone	3.6	18254	15481	3.37
1033	330149	6673298	Great Gladstone	12	5352	7594	1.29
1034	330153	6673300	Great Gladstone	4.2	17406	10718	2.81
1035	330153	6673300	Great Gladstone	5.2	21823	8638	3.05
1036	330153	6673300	Great Gladstone	23	12747	7375	2.01
1037	330160	6673345	Great Gladstone	5.1	11111	83082	9.42
1038	330165	6673369	Great Gladstone	6.3	3540	147548	15.11
1039	330165	6673369	Great Gladstone	2.2	2335	10208	1.25
1040	330156	6673382	Great Gladstone	4.1	6756	9900	1.67
1041	330167	6673428	Great Gladstone	29.9	18546	4090	2.26
1042	330167	6673428	Great Gladstone	6.3	4043	5566	0.96
1043	330169	6673447	Great Gladstone	21	8711	11826	2.05
1044	330169	6673447	Great Gladstone	23	20428	19091	3.95
1045	330151	6673509	Great Gladstone	53.4	18563	8059	2.66
1046	330151	6673509	Great Gladstone	47	40100	10907	5.1
1047	330160	6673478	Great Gladstone	57.8	50679	25632	7.63
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1050	330142	6673564	Great Gladstone	284.1	68912	27119	9.6
1051	330145	6673569	Great Gladstone	6.1	3832	5310	0.91
1052	330138	6673576	Great Gladstone	95.5	51626	21729	7.34
1053	330138	6673576	Great Gladstone	82.4	45342	19783	6.51
1054	330110	6673582	Great Gladstone	12.3	10416	14547	2.5

Name	Easting	Northing	Prospect	Ag g/t	Pb ppm	Zn ppm	Pb+Zn%
1055	330138	6673647	Great Gladstone	231.1	112595	34211	14.68
1056	330139	6673671	Great Gladstone	82.4	60057	14545	7.46
1057	330154	6673786	Great Gladstone	27.9	11638	8930	2.06
1058	330173	6673879	Great Gladstone	132.1	27122	60505	8.76
1059	330173	6673879	Great Gladstone	98.3	18492	56304	7.48
1060	330173	6673879	Great Gladstone	57.5	15114	20832	3.59
1061	330168	6673903	Great Gladstone	3	3558	12338	1.59
1062	330182	6674087	Great Gladstone	2	829	2030	0.29
1063	330186	6674181	Great Gladstone	2.5	539	41034	4.16
1064	333196	6672236	SE Emily	2.1	60	141	0.02
1066	333196	6672236	SE Emily	1.1	28	24	0.01
1068	332911	6672469	Emily	8.4	24360	14520	3.89
1069	332911	6672469	Emily	18.5	18440	14944	3.34
1070	332918	6672448	Emily	4.8	13588	2212	1.58
1071	332918	6672448	Emily	5.2	16487	6550	2.3
1076	335567	6673704	Big Hill	15.8	1910	27451	2.94
1077	335584	6673790	Big Hill	2.7	8301	59	0.84
1079	335478	6673248	Big Hill	1.2	53	11	0.01

Table 2: Rock chip data from EL 5015 Yerelina with combined lead and zinc assays above 1% and/or silver assays above 1 g/t.

Au: FA25//AA Lead Collection Fire Assay:

Ag, Pb: 4A/MS 4 Acid Digest Mass Spectrometry:

Cu, Zn: 4A/OE 4 Acid Digest Inductively Coupled Plasma Optical Emission Spectrometry

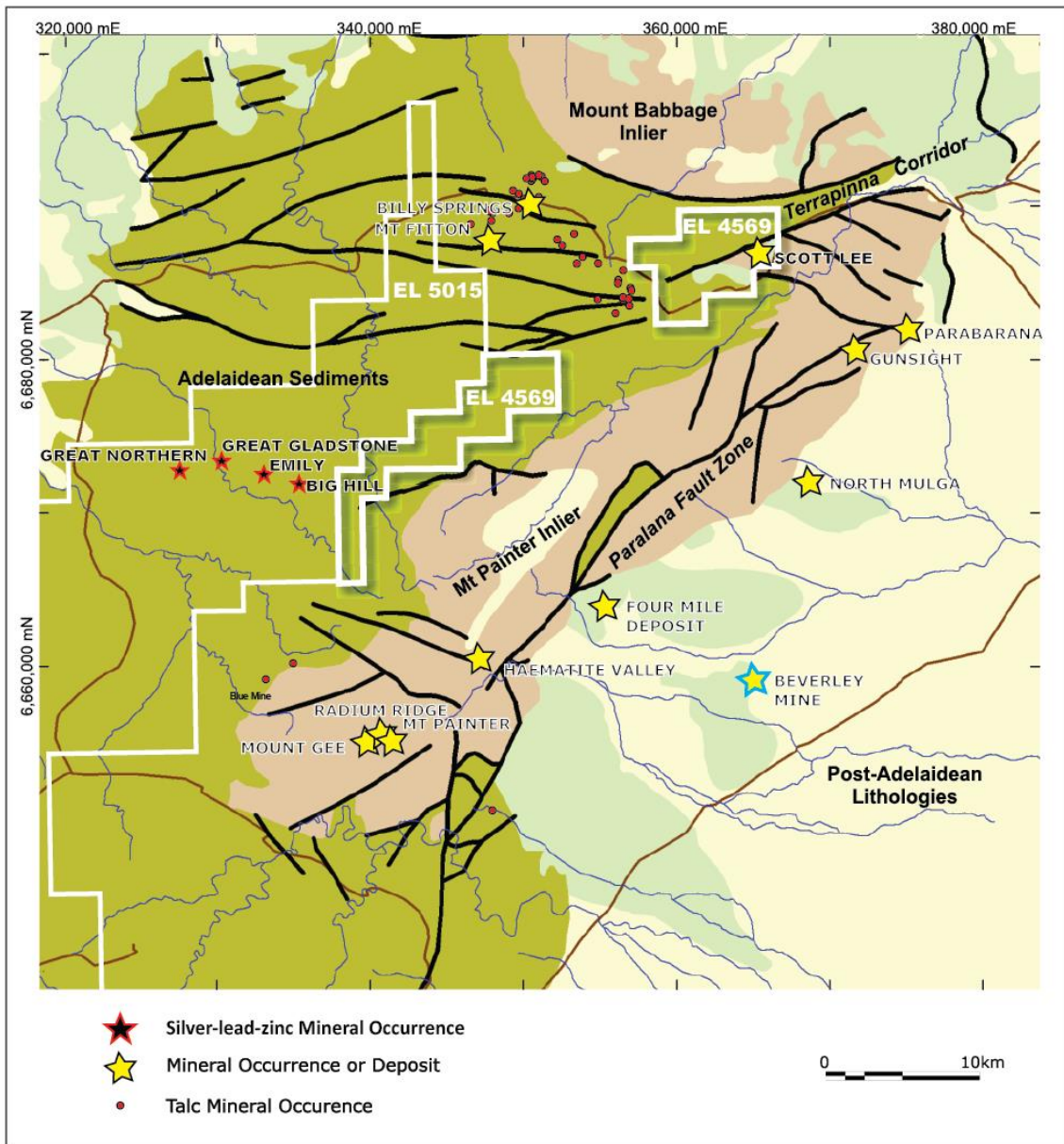


Figure 3: EL 5015 Yerelina in and EL 4569 Fitton and surrounding mineral occurrences and mines, northern South Australia.