ASX Announcement **3 February 2023**

High-grade rock chips up to 17.5%Cu and 1,495g/t Ag expand the mineralised footprint of the Llahuin Copper-Gold Porphyry Project Chile

Highlights:

- **A rock chip sampling and mapping program started in 2022 has identified high-grade veins in the Llahuin Project area**
- **The best results include 22LHR000184 with 4.12% Cu 0.36g/t Au and 1,495g/t Ag from an outcropping vein at Cerro de Oro and 22LHR000183 located 20m along strike with 2.74% Cu, 0.58g/t Au and 1,045g/t Ag**
- **Samples 22LHR000105 and 106 sampled a North-South striking vein over a 90m strike (where exposed) and returned values of 16.6% Cu, 0.94g/t Au and 1g/t Ag and 16.3% Cu, 1.13g/t Au and 4g/t Ag respectively, located 1km North of Cerro de Oro**

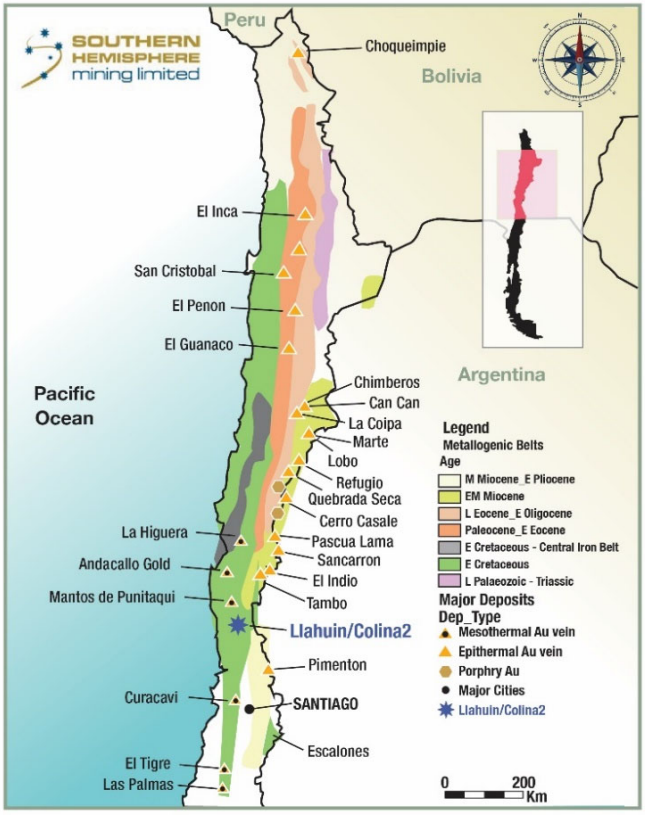

Figure 1 Location Map of Llahuin Project – Chile

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Southern Hemisphere Mining Limited ("Southern Hemisphere" or "the Company) (ASX: SUH) reports that the geological mapping of areas previously un-explored within the project area included 254 rockchips collected during the 2022 mapping program.

The rockchip sampling program at Llahuin has identified several veins in areas outside known resources in the project area. Significant results are presented below (Table 1) and demonstrate very high-grade copper ±- gold ± silver veins occur in the project area.

Sample ID	WGS Easting	WGS Northing	RL	Cu %	Au_ppm	Ag_ppm
22LHR000092	307803	6531901	1382	17.50	0.23	2
22LHR000105	306685	6530575	1503	16.58	0.94	1
22LHR000106	306686	6530666	1491	16.27	1.13	4
22LHR000087	307826	6532092	1437	11.30	0.84	8
22LHR000088	307898	6532089	1458	6.99	0.46	2
22LHR000090	307837	6532105	1447	4.88	0.53	2
22LHR000184	306542	6531924	1354	4.12	0.36	1495
22LHR000086	307591	6532644	1326	4.12	0.70	238
22LHR000013	307913	6528823	1544	3.15	0.06	22
22LHR000183	306558	6531935	1356	2.74	0.58	1045
22LHR000158	306889	6531811	1336	2.43	4.39	345
22LHR000219	306619	6532288	1283	1.98	0.08	0.5
22LHR000214	306694	6532311	1287	1.66	4.53	3
22LHR000136	308245	6532915	1543	1.41	0.14	3
22LHR000103	307430	6532136	1318	1.39	6.00	24
22LHR000104	306689	6530581	1503	1.10	0.66	3
22LHR000166	307561	6531487	1343	0.87	0.05	3
22LHR000217	306759	6532309	1282	0.87	3.26	7
22LHR000020	308219	6528149	1584	0.66	0.09	0.5
22LHR000149	306750	6532230	1285	0.61	0.86	3
22LHR000198	307002	6530665	1396	0.61	2.74	0.5
22LHR000218	306747	6532314	1282	0.59	0.16	0.5
22LHR000162	307479	6532597	1343	0.58	0.02	15
22LHR000140	307534	6532421	1334	0.54	0.10	99
22LHR000100	307605	6531998	1353	0.48	0.03	1
22LHR000238	307101	6532356	1281	0.46	0.16	0.5
22LHR000188	306932	6530799	1384	0.44	0.05	0.5
22LHR000006	306858	6531954	1303	0.39	9.13	8
22LHR000080	307149	6532602	1242	0.38	1.38	2
22LHR000193	306939	6530793	1382	0.38	0.10	1
22LHR000199	307006	6530669	1395	0.35	0.56	2
22LHR000215	306759	6532303	1283	0.35	0.02	2
22LHR000167	307563	6531489	1336	0.34	0.09	4
22LHR000095	307483	6532059	1334	0.34	5.96	45

Table 1 Llahuin Significant Copper± Gold ± Silver Rockchip Results

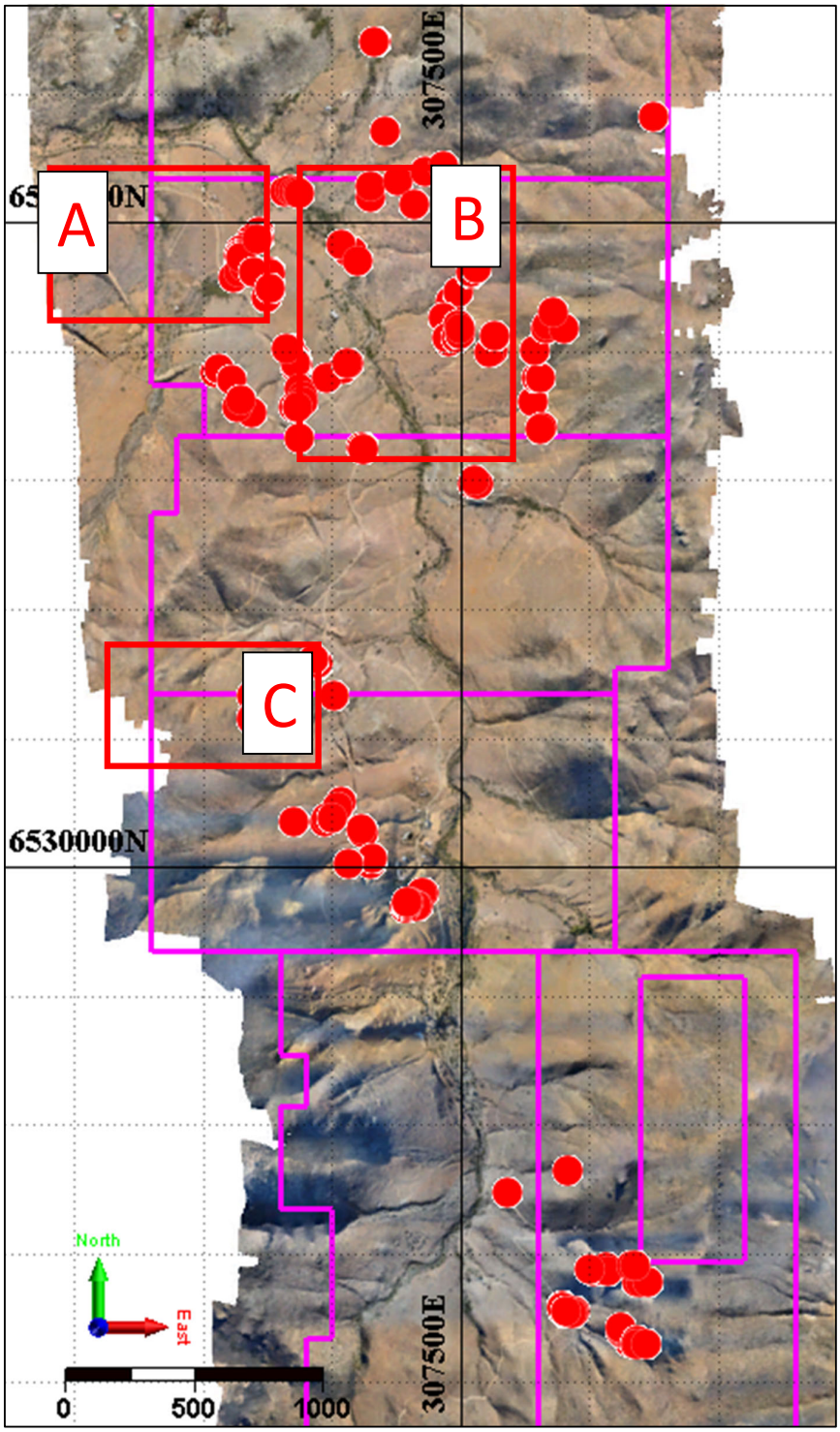

Figure 2 Llahuin rock chip sample locations

Three target areas have been defined, one at Cerro de Oro, a second 1km North of Cerro de Oro and a third North of the Central Porphyry insets A, B and C above.

The NE striking vein North of the Cerro de Oro deposit contains high-grade copper and silver outlined by samples 22LHR000183-184 which contain visible azurite and chalcocite. The area will require additional work to determine the strike extent of this vein system. An additional two copper-bearing veins were identified to the NE of this with sample 22LHR000214 assaying 1.66% Cu, 4.53g/t Au and 3g/t Ag.

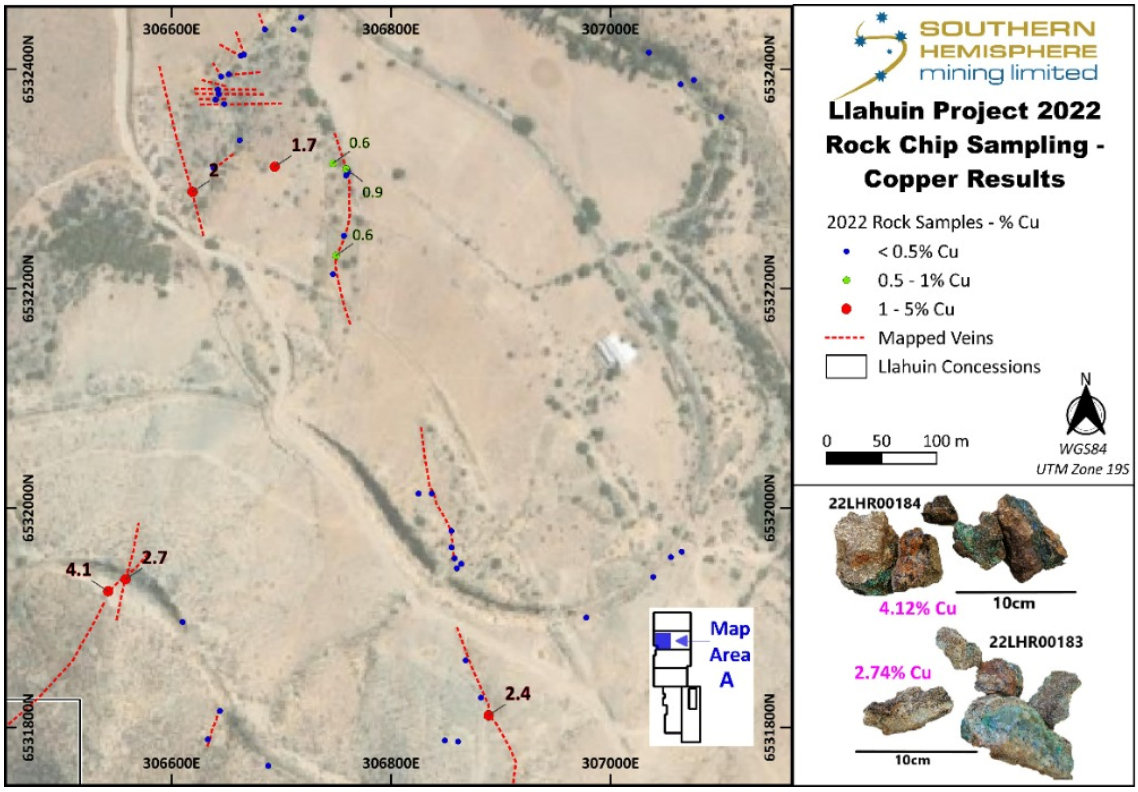

Figure 3 Area A Copper results 1km north of Cerro de Oro in % copper

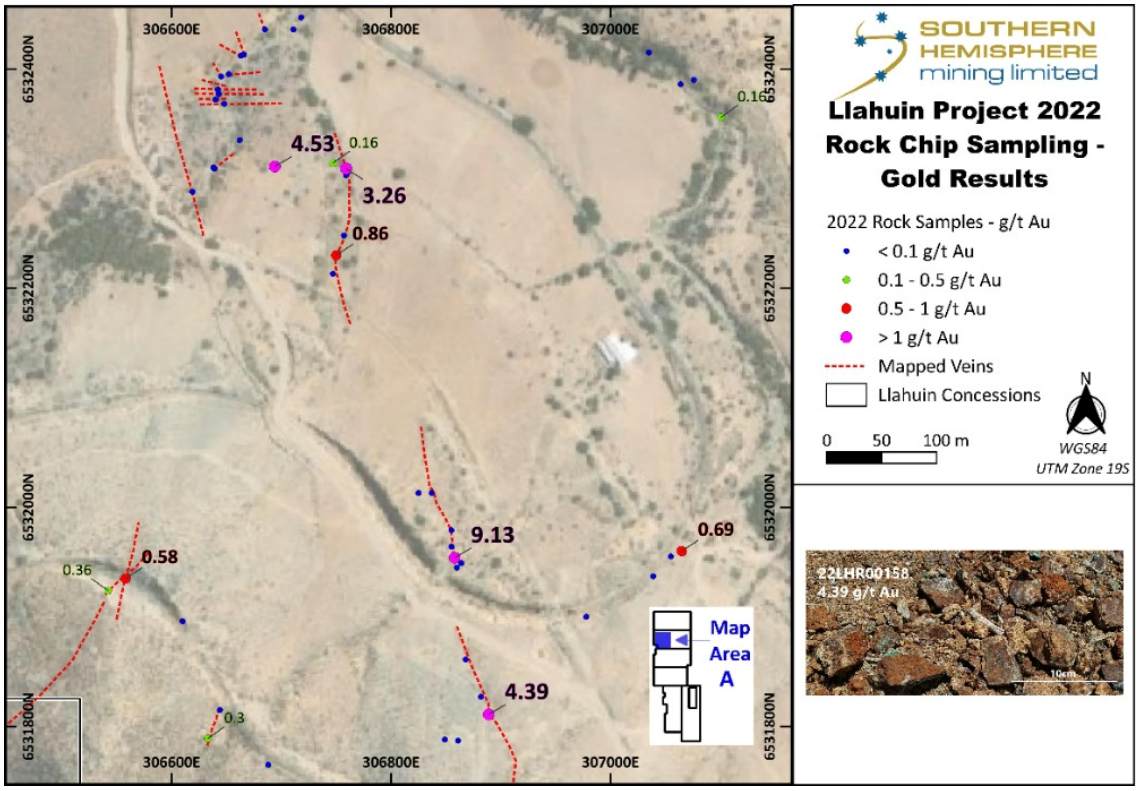

Figure 4 Area A Gold rockchip results

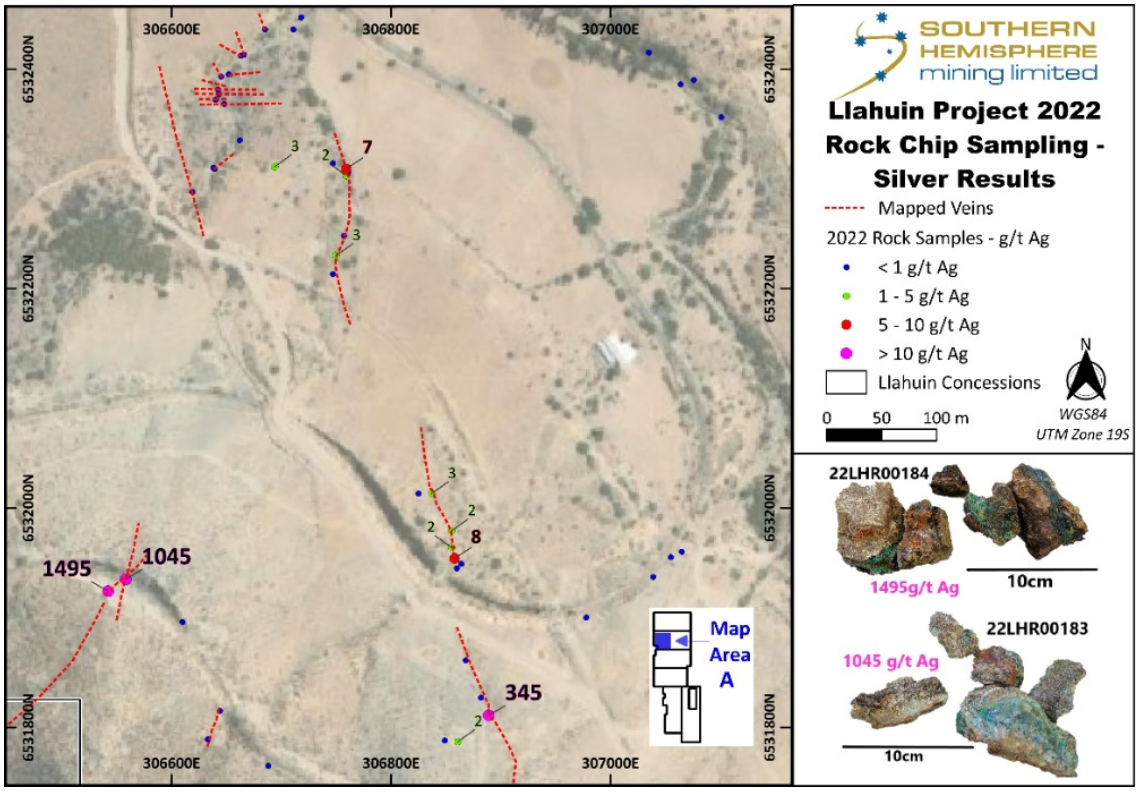

Figure 5 Area A Silver rockchip results in g/t

The vein system North of the Central Porphyry contains several thin <2m wide, higher grade copper and gold veins which strike NNE to NE. The copper values ranged from 0.1% to 17.5% copper and gold values from 0.01 to 6g/t gold in an NNE trending vein system which requires further work.

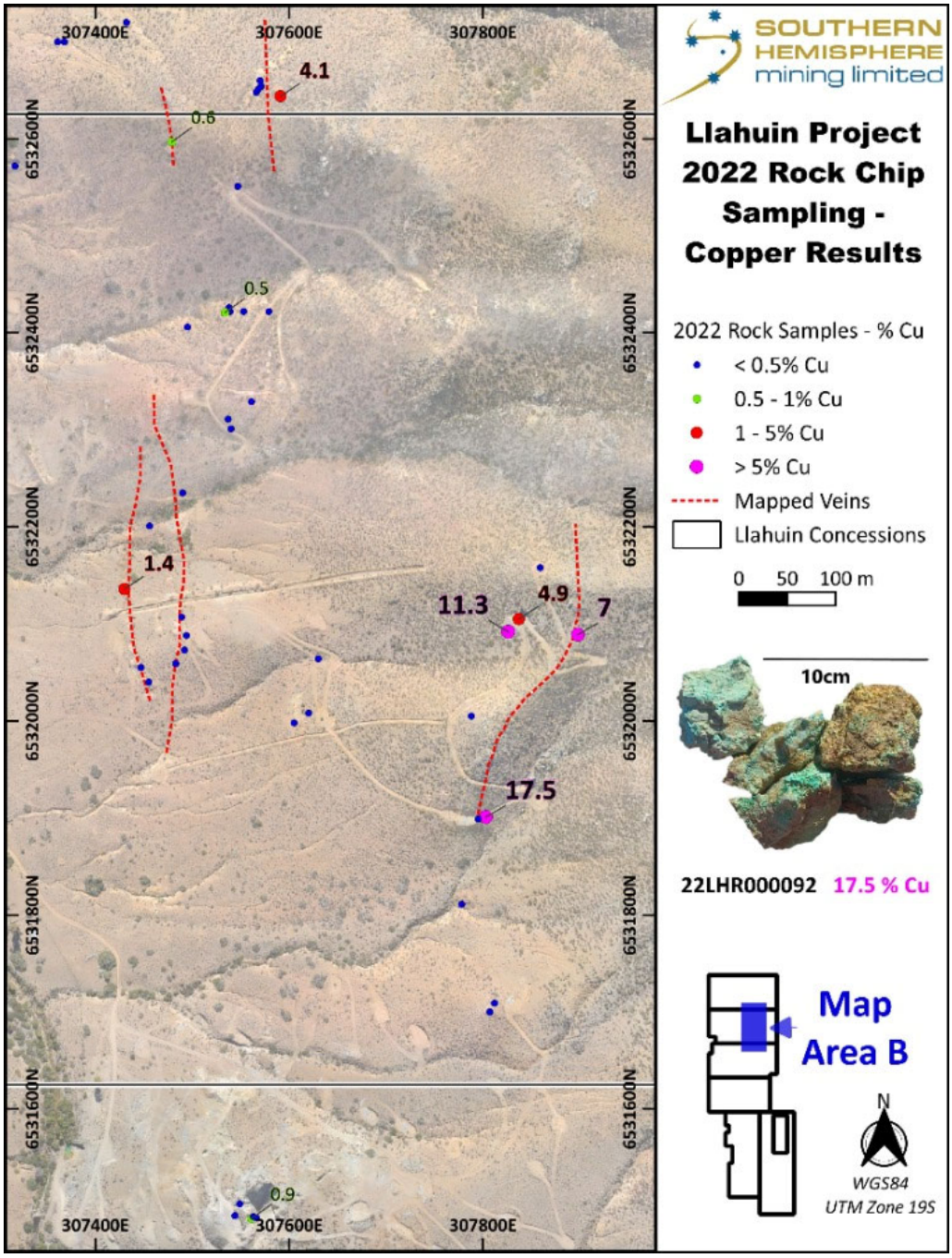

Figure 6 Area B Rockchip copper results north of the Central Porphyry.

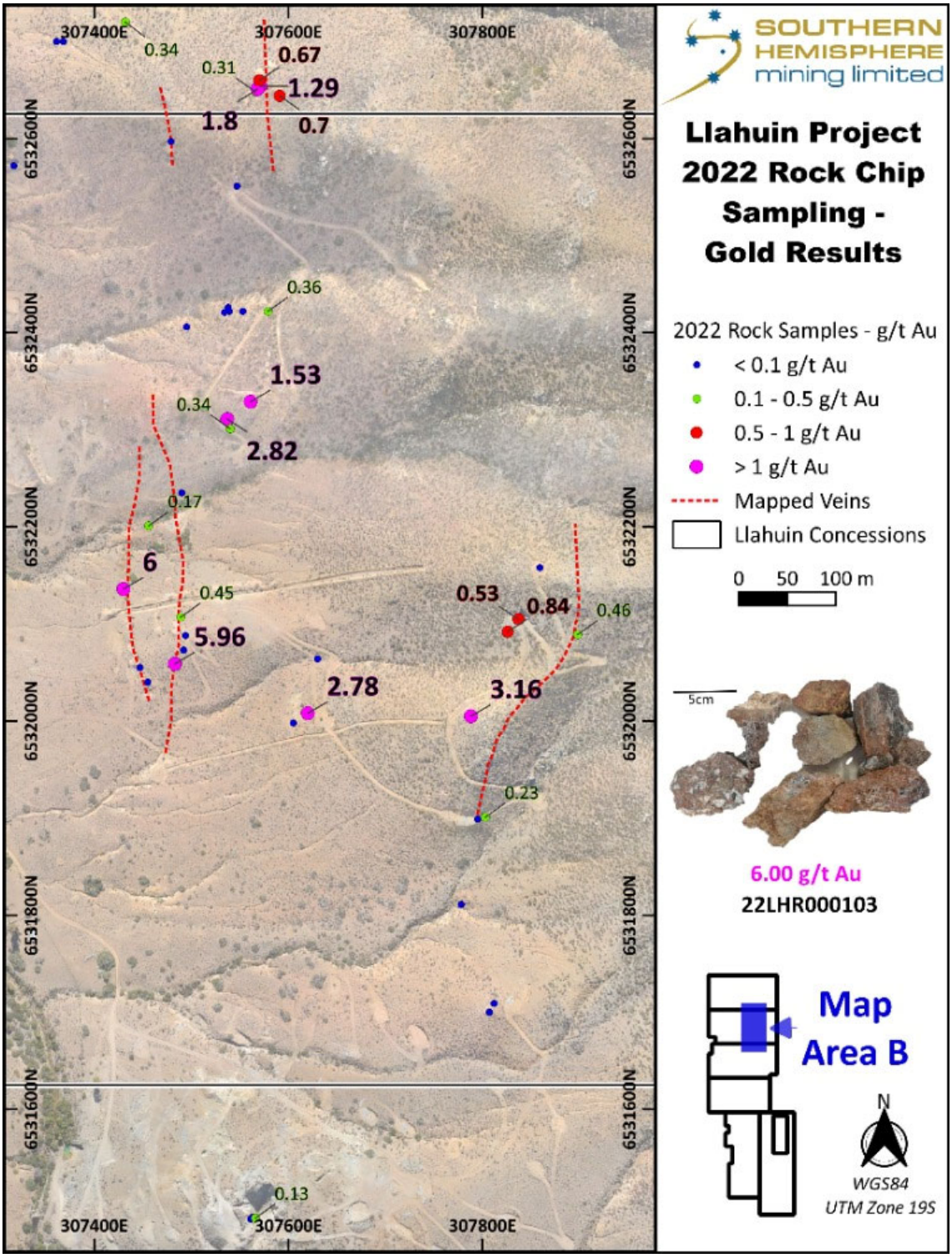

Figure 7 Area B Rockchip Gold results

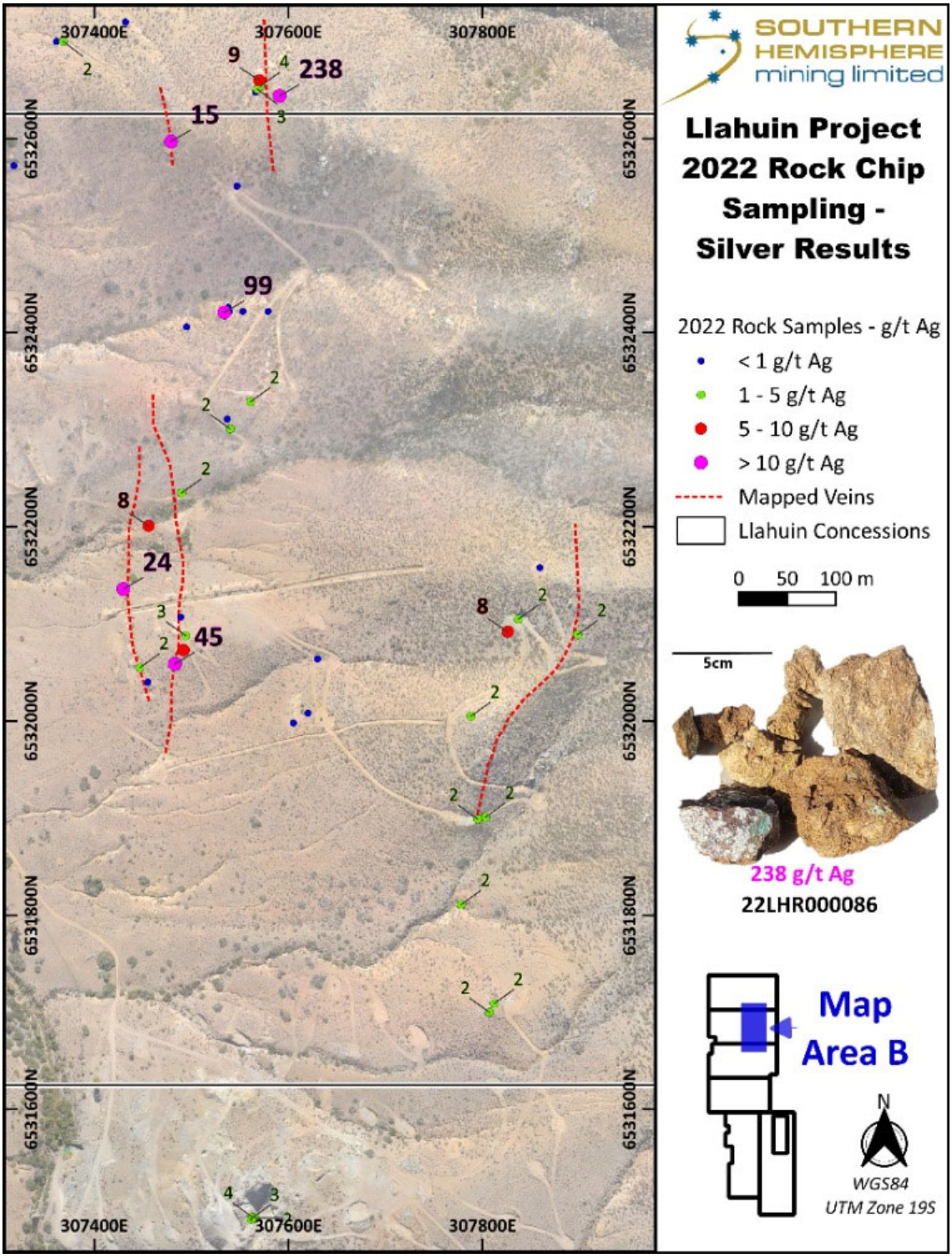

Figure 8 Area B Rockchip Silver results

Very high-grade Cu-bearing veins were sampled to the west of the Cerro de Oro deposit with samples 22LHR000105 and 106 testing a North-South striking vein over a 90m strike (where exposed) and returned values of 16.6% Cu, 094g/t Au and 1g/t Ag and 16.3% Cu, 1.13g/t Au and 4g/t Ag respectively.

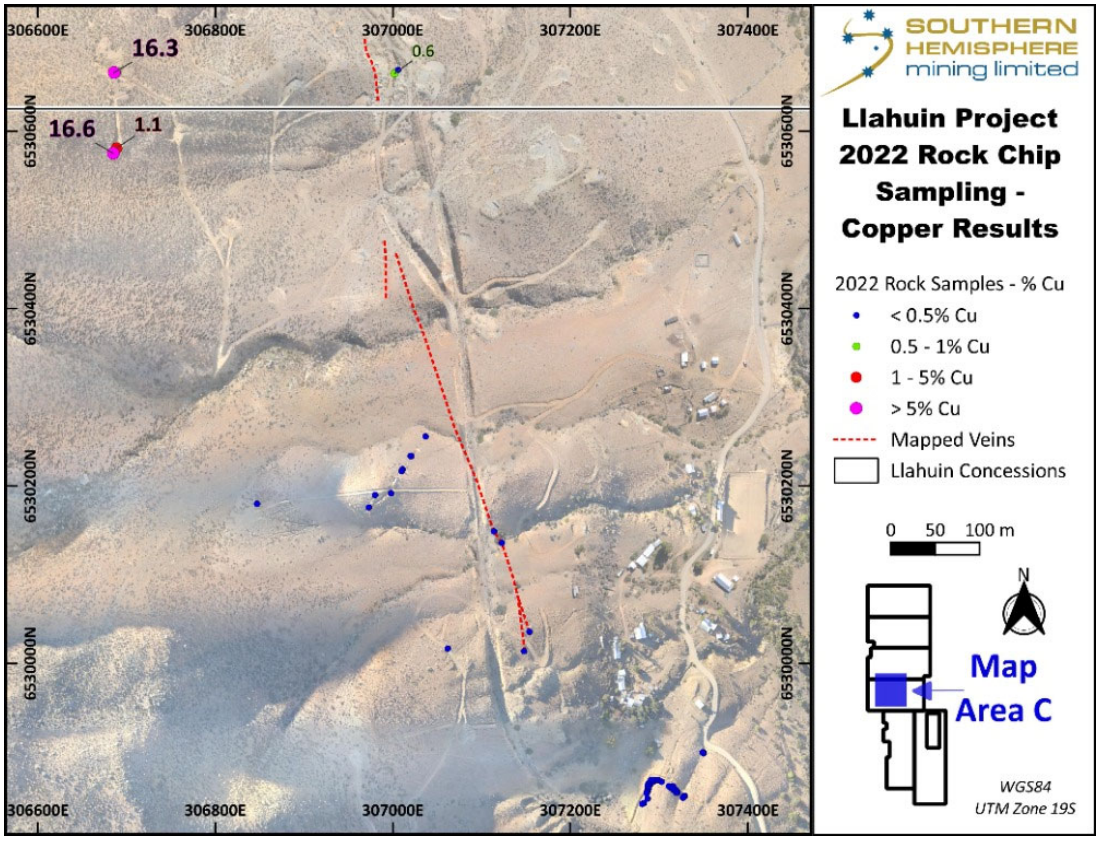

Figure 9 Area C High-grade copper bearing vein to the west of Cerro de Oro deposit

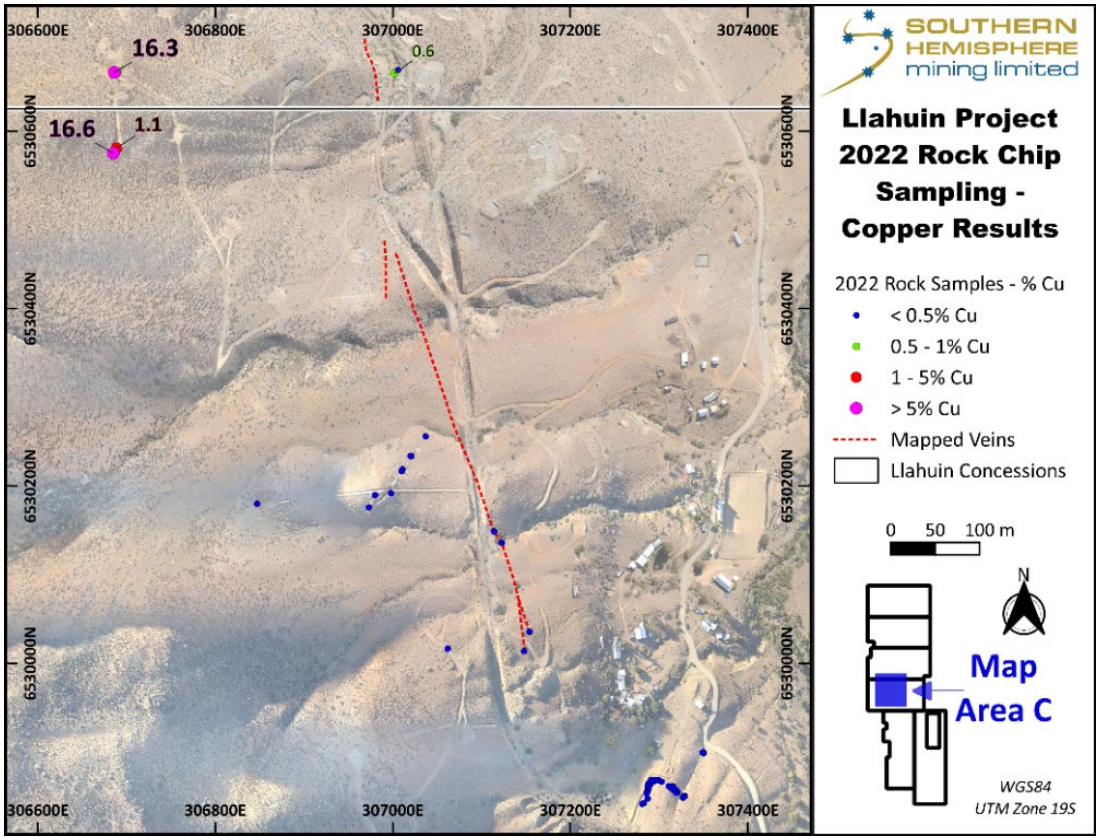

Figure 10 Area C Copper Rockchip Results

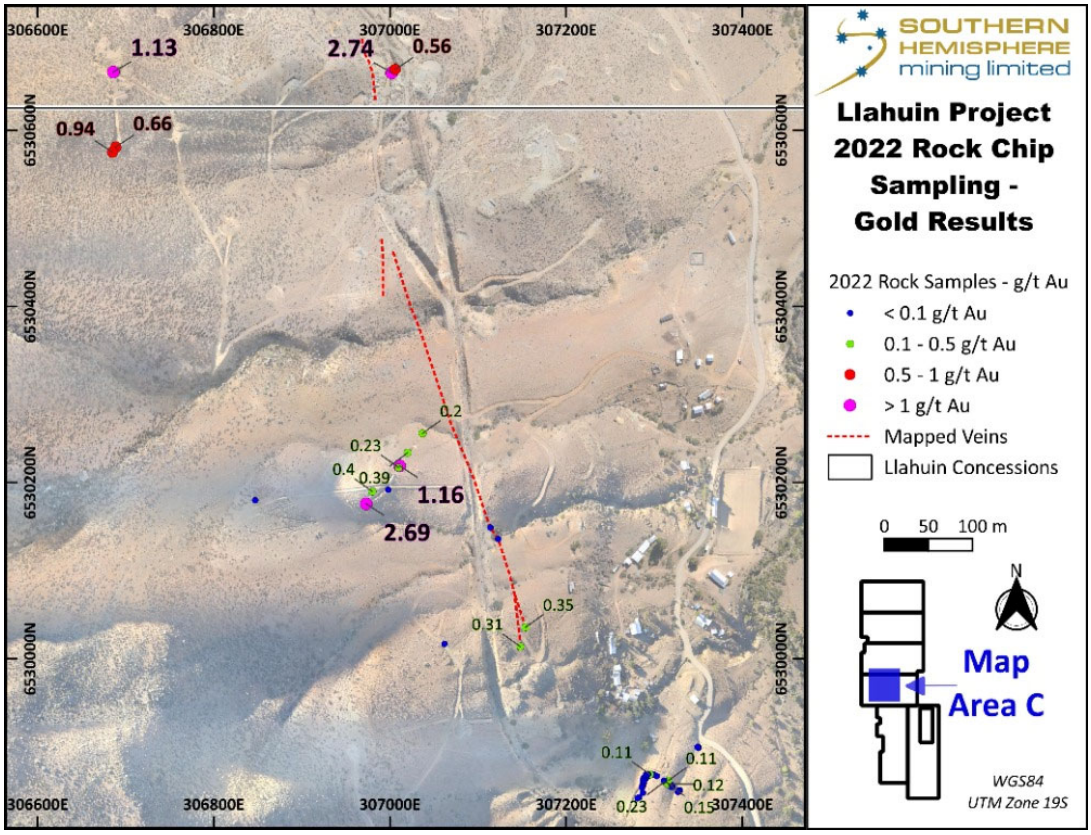

Figure 11 Area C Gold Rockchip results

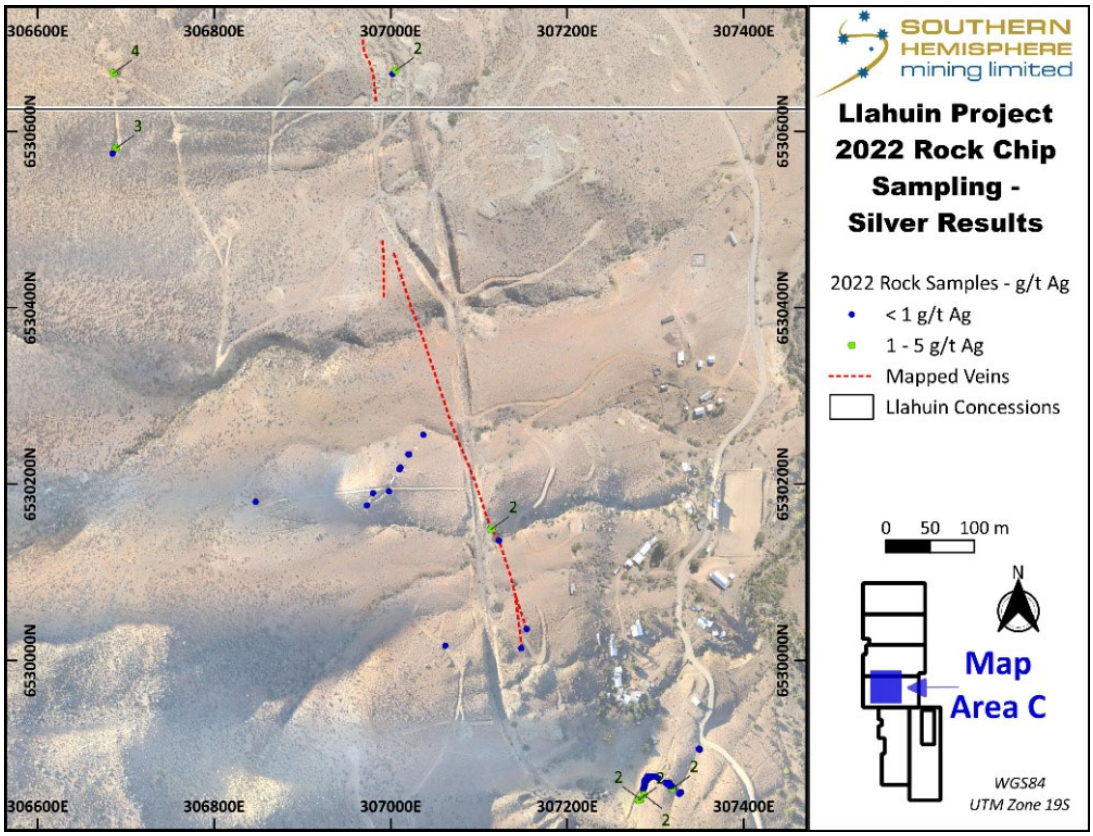

Figure 12 Area C Silver Rockchip results

The sampling program has continued into 2023 to better define veins suitable for drill testing. Further exploration work continues to expand the target opportunities for copper/gold/silver resource expansion.

Approved by the Board for release.

CONTACTS:
For further information on this update or the Company generally, please visit our website at www.shmining.com.au or contact the Company :

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BACKGROUND INFORMATION ON SOUTHERN HEMISPHERE MINING:

Southern Hemisphere Mining Limited is an experienced minerals explorer in Chile, South America. Chile is the world's leading copper-producing country and one of the most prospective regions of the world for major new copper discoveries. The Company's projects include the Llahuin Porphyry Copper-Gold Project, the Colina 2 Gold/Copper prospect near Llahuin, and the Los Pumas Manganese Project, all of which were discovered by the Company.

Llahuin Copper/Gold/Moly Project: Total Measured and Indicated Resources - JORC (2004) Compliant. As announced to the market on 18 August 2013.

Resource (at 0.28% Cu Equiv cut-off)	Tonnes Millions	Cu %	Au g/t	Mo %	Cu Equiv*
Measured	112	0.31	0.12	0.008	0.42
Indicated	37	0.23	0.14	0.007	0.37
Measured plus Indicated	**149**	**0.29**	**0.12**	**0.008**	**0.41**
Inferred	20	0.20	0.19	0.005	0.36
Total M+I+I	169	0.28	0.128	0.008	0.40

Note: *Copper Equivalent ("Cu Equiv"): *The copper equivalent calculations represent the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage. These results are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result. It is the Company's opinion that elements considered have a reasonable potential to be recovered as evidenced in similar multi-commodity natured mines. Copper equivalent conversion factors and long-term price assumptions used are stated below:*

Notes on copper recovery from historical testwork

- "*Recoveries of copper vary between 75% Cu and 91% Cu with the weighted average of the results being 84% Cu, which is a typically acceptable commercial level*";
- "*Recoveries of gold vary between 41% Au and 57% Au, which is in line with expectations given the relatively low gold grades within the deposit*"; and
- "*Flotation concentrates produced during testing contained the resource weighted average copper grade of 28% Cu and 4.9g/t Au. They also contained low levels of deleterious materials in the concentrate. Given that these tests were designed to set parameters and were not optimized, the results indicated good flotation process characteristics*".

Copper Equivalent Formula= Cu % + Au (g/t) x 0.72662 + Mo % x 4.412 Price Assumptions- Cu ($3.40/lb), Au ($1,700/oz), Mo ($15/lb)

Los Pumas Manganese Project: Total Measured and Indicated Resources - JORC (2004) Compliant. As announced to the market on 25 March 2011.

Resource (at 4% Mn cut-off)	Tonnes Millions	Mn %	SiO_2 %	Fe_2O_3 %	Al %	K %	P %
Measured	5.27	7.39	57.85	2.78	5.62	2.88	0.05
Indicated	13.06	7.65	55	2.96	5.64	2.92	0.05
Measured plus Indicated	**18.34**	**7.58**	**55.82**	**2.91**	**5.62**	**2.91**	**0.05**
Inferred	5.39	8.59	51.44	2.72	5.49	2.69	0.06
Total	**23.73**	**7.81**					

Metallurgical studies have demonstrated greater than 38% Mn concentrates are achievable by DMS with low impurities and high silica product.

In relation to the above resources, the Company confirms that it is not aware of any new information or data that materially affects the information in the announcements, and all material assumptions and technical parameters in the announcements underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

COMPETENT PERSON / QUALIFIED PERSON STATEMENT:

The information in this report that relates to copper and gold exploration results for the Company's Projects is based on information compiled by Mr Adam Anderson, who is a Member of The Australasian Institute of Mining and Metallurgy and The Australian Institute of Geoscientists. Mr Anderson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Anderson is a consultant for the Company and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.
For further information, please refer to the Technical Reports and News Releases on the Company's website at www.shmining.com.au.

JORC Table 1

Appendix 1 Rockchip Location Data and Results

Sample ID	WGS Easting	WGS Northing	RL	Au_ppm	Ag_ppm	Cu%
22LHR000001	306817	6532626	1258	0.0025	0.03	0.003
22LHR000002	306834	6532629	1258	0.0025	0.01	0.002
22LHR000003	306849	6532625	1258	0.005	0.02	0.003
22LHR000004	306863	6532620	1258	0.027	0.48	0.03
22LHR000005	306872	6532613	1258	0.0025	0.05	0.006
22LHR000006	306858	6531954	1303	9.13	8	0.388
22LHR000007	306860	6531945	1302	0.085	1	0.131
22LHR000008	306864	6531949	1301	0.032	1	0.012
22LHR000009	307065	6531960	1290	0.692	1	0.106
22LHR000010	307055	6531955	1295	0.013	0.5	0.033
22LHR000011	307039	6531937	1291	0.0025	0.5	0.005
22LHR000012	306978	6531900	1294	0.0025	0.5	0.026
22LHR000013	307913	6528823	1544	0.058	22	3.151
22LHR000014	307914	6528824	1544	0.0025	0.5	0.006
22LHR000015	307681	6528737	1405	0.011	0.5	0.005
22LHR000016	308183	6528154	1584	0.005	1	0.002
22LHR000017	308182	6528162	1584	0.014	0.5	0.004
22LHR000018	308173	6528154	1584	0.13	0.5	0.017
22LHR000019	308182	6528150	1584	0.061	0.5	0.02
22LHR000020	308219	6528149	1584	0.091	0.5	0.658
22LHR000021	308129	6528191	1574	0.054	1	0.029
22LHR000022	308126	6528192	1575	0.032	1	0.035
22LHR000023	308125	6528192	1576	0.05	1	0.029
22LHR000024	308123	6528195	1575	0.071	0.5	0.062
22LHR000025	308122	6528196	1576	0.27	1	0.031
22LHR000026	308121	6528198	1576	0.104	1	0.037
22LHR000027	308120	6528200	1576	0.011	0.5	0.02
22LHR000028	308119	6528201	1576	0.011	0.5	0.006
22LHR000029	308117	6528202	1576	0.006	0.5	0.003
22LHR000030	308117	6528205	1576	0.005	0.5	0.003
22LHR000031	308116	6528207	1576	0.019	0.5	0.006
22LHR000032	308117	6528208	1576	0.005	0.5	0.01
22LHR000033	308118	6528210	1577	0.006	0.5	0.007
22LHR000034	308118	6528211	1578	0.006	1	0.018
22LHR000035	308119	6528213	1578	0.008	0.5	0.028
22LHR000036	308119	6528214	1579	0.036	0.5	0.041
22LHR000037	308120	6528215	1579	0.036	1	0.055
22LHR000038	308121	6528218	1579	0.407	1	0.051
22LHR000039	307350	6529900	1388	0.011	0.5	0.012
22LHR000040	307350	6529899	1388	0.045	0.5	0.049
22LHR000041	307349	6529900	1388	0.023	1	0.013
22LHR000042	308185	6528391	1577	0.75	16	0.039

Sample ID	WGS Easting	WGS Northing	RL	Au_ppm	Ag_ppm	Cu%
22LHR000043	308189	6528391	1571	0.94	44	0.078
22LHR000044	308184	6528400	1574	0.04	1	0.024
22LHR000045	308195	6528391	1577	0.185	6	0.02
22LHR000046	308225	6528391	1577	0.211	3	0.026
22LHR000047	308152	6528155	1570	0.717	8	0.012
22LHR000048	307329	6529851	1403	0.045	1	0.122
22LHR000049	307328	6529851	1406	0.021	0.5	0.099
22LHR000050	307327	6529849	1409	0.027	0.5	0.081
22LHR000051	307321	6529855	1408	0.065	0.5	0.163
22LHR000052	307319	6529855	1404	0.028	2	0.118
22LHR000053	307316	6529858	1405	0.123	1	0.117
22LHR000054	307319	6529858	1404	0.041	0.5	0.12
22LHR000055	307317	6529859	1405	0.038	0.5	0.1
22LHR000056	307316	6529862	1403	0.106	0.5	0.086
22LHR000057	307312	6529861	1408	0.228	0.5	0.092
22LHR000058	307314	6529860	1406	0.148	1	0.058
22LHR000059	307311	6529862	1407	0.018	0.5	0.147
22LHR000060	307303	6529867	1406	0.037	0.5	0.103
22LHR000061	307299	6529869	1404	0.062	1	0.088
22LHR000062	307295	6529869	1406	0.046	1	0.063
22LHR000063	307295	6529868	1410	0.098	0.5	0.1
22LHR000064	307293	6529867	1406	0.058	1	0.141
22LHR000065	307295	6529869	1405	0.105	0.5	0.195
22LHR000066	307293	6529869	1407	0.078	1	0.143
22LHR000067	307291	6529869	1408	0.089	1	0.082
22LHR000068	307290	6529864	1415	0.081	1	0.065
22LHR000069	307288	6529865	1417	0.068	0.5	0.067
22LHR000070	307288	6529863	1407	0.09	1	0.067
22LHR000071	307287	6529862	1403	0.088	0.5	0.039
22LHR000072	307287	6529857	1410	0.036	0.5	0.1
22LHR000073	307288	6529859	1408	0.033	0.5	0.077
22LHR000074	307287	6529856	1413	0.036	1	0.103
22LHR000075	307286	6529855	1411	0.043	1	0.074
22LHR000076	307286	6529854	1411	0.04	1	0.072
22LHR000077	307287	6529848	1407	0.045	2	0.044
22LHR000078	307283	6529843	1408	0.014	2	0.04
22LHR000079	307281	6529842	1409	0.027	2	0.032
22LHR000080	307149	6532602	1242	1.38	2	0.383
22LHR000081	307151	6532642	1246	0.945	0.5	0.091
22LHR000082	307256	6532669	1257	0.086	0.5	0.235
22LHR000083	307571	6532654	1313	1.29	4	0.156
22LHR000084	307566	6532648	1313	0.309	1	0.249
22LHR000085	307568	6532651	1313	1.795	3	0.087
22LHR000086	307591	6532644	1326	0.696	238	4.117
22LHR000087	307826	6532092	1437	0.844	8	11.3

Sample ID	WGS Easting	WGS Northing	RL	Au_ppm	Ag_ppm	Cu%
22LHR000088	307898	6532089	1458	0.462	2	6.993
22LHR000089	307859	6532158	1460	0.012	0.5	0.034
22LHR000090	307837	6532105	1447	0.531	2	4.879
22LHR000091	307788	6532005	1419	3.16	2	0.292
22LHR000092	307803	6531901	1382	0.231	2	17.5
22LHR000093	307795	6531899	1380	0.067	2	0.123
22LHR000094	307492	6532073	1337	0.076	10	0.266
22LHR000095	307483	6532059	1334	5.96	45	0.342
22LHR000096	307489	6532107	1334	0.447	1	0.126
22LHR000097	307494	6532088	1345	0.066	3	0.159
22LHR000098	307630	6532064	1355	0.051	1	0.032
22LHR000099	307620	6532008	1347	2.78	1	0.058
22LHR000100	307605	6531998	1353	0.032	1	0.48
22LHR000101	307447	6532055	1329	0.009	2	0.013
22LHR000102	307455	6532040	1320	0.079	0.5	0.079
22LHR000103	307430	6532136	1318	6	24	1.387
22LHR000104	306689	6530581	1503	0.659	3	1.096
22LHR000105	306685	6530575	1503	0.937	1	16.575
22LHR000106	306686	6530666	1491	1.13	4	16.27
22LHR000107	307941	6528279	1521	0.082	2	0.04
22LHR000108	307936	6528278	1521	0.076	1	0.034
22LHR000109	307933	6528278	1521	0.074	0.5	0.038
22LHR000110	307933	6528275	1522	0.111	1	0.041
22LHR000111	307929	6528273	1524	0.085	1	0.033
22LHR000112	307926	6528278	1521	0.087	2	0.034
22LHR000113	307925	6528276	1521	0.054	0.5	0.023
22LHR000114	307921	6528275	1519	0.063	1	0.038
22LHR000115	307919	6528275	1518	0.067	0.5	0.03
22LHR000116	307921	6528272	1522	0.037	0.5	0.02
22LHR000117	307915	6528272	1522	0.066	1	0.038
22LHR000118	307916	6528273	1521	0.106	2	0.043
22LHR000119	307912	6528273	1518	0.068	0.5	0.038
22LHR000120	307911	6528273	1520	0.072	0.5	0.037
22LHR000121	307906	6528275	1521	0.153	0.5	0.043
22LHR000122	307907	6528275	1520	0.07	1	0.044
22LHR000123	307903	6528275	1518	0.14	0.5	0.048
22LHR000124	307903	6528278	1525	0.089	1	0.04
22LHR000125	307901	6528278	1517	0.089	2	0.063
22LHR000126	307900	6528280	1522	0.088	1	0.089
22LHR000127	307897	6528284	1520	0.139	0.5	0.073
22LHR000128	307899	6528289	1521	0.098	0.5	0.054
22LHR000129	307892	6528292	1522	0.148	2	0.051
22LHR000130	307893	6528290	1522	0.156	1	0.081
22LHR000131	307894	6528292	1523	0.257	0.5	0.051
22LHR000132	307893	6528295	1519	0.043	1	0.064

Sample ID	WGS Easting	WGS Northing	RL	Au_ppm	Ag_ppm	Cu%
22LHR000133	307893	6528294	1520	0.077	0.5	0.085
22LHR000134	307892	6528302	1522	0.034	0.5	0.038
22LHR000135	307547	6532551	1366	0.029	0.5	0.034
22LHR000136	308245	6532915	1543	0.14	3	1.405
22LHR000137	307495	6532406	1324	0.033	1	0.089
22LHR000138	307538	6532426	1342	0.074	1	0.028
22LHR000139	307539	6532422	1336	0.069	1	0.012
22LHR000140	307534	6532421	1334	0.1	99	0.541
22LHR000141	307553	6532422	1343	0.036	1	0.071
22LHR000142	307579	6532422	1344	0.363	0.5	0.033
22LHR000143	307561	6532329	1345	1.525	2	0.031
22LHR000144	307537	6532311	1341	2.82	0.5	0.035
22LHR000145	307540	6532301	1337	0.343	2	0.101
22LHR000146	307490	6532235	1312	0.065	2	0.09
22LHR000147	307456	6532201	1309	0.169	8	0.105
22LHR000148	306757	6532248	1290	0.053	1	0.191
22LHR000149	306750	6532230	1285	0.859	3	0.61
22LHR000150	306747	6532213	1287	0.052	1	0.314
22LHR000151	306855	6531964	1302	0.007	2	0.054
22LHR000152	306825	6532013	1304	0.0025	0.5	0.002
22LHR000153	306855	6531979	1300	0.018	2	0.062
22LHR000154	306837	6532013	1301	0.047	3	0.051
22LHR000155	306868	6531861	1317	0.012	0.5	0.031
22LHR000156	306882	6531827	1331	0.042	0.5	0.073
22LHR000157	306887	6531810	1338	0.012	1	0.129
22LHR000158	306889	6531811	1336	4.39	345	2.429
22LHR000159	306861	6531787	1354	0.005	2	0.01
22LHR000160	306849	6531788	1352	0.009	0.5	0.061
22LHR000161	307317	6532572	1300	0.005	0.5	0.114
22LHR000162	307479	6532597	1343	0.024	15	0.578
22LHR000163	307812	6531709	1376	0.0025	2	0.016
22LHR000164	307807	6531700	1377	0.0025	2	0.029
22LHR000165	307778	6531811	1355	0.005	2	0.019
22LHR000166	307561	6531487	1343	0.052	3	0.872
22LHR000167	307563	6531489	1336	0.091	4	0.344
22LHR000168	307566	6531488	1346	0.134	2	0.301
22LHR000169	307544	6531490	1342			0.085
22LHR000170	307549	6531502	1347			0.079
22LHR000171	307163	6533201	1347	0.009	2	0.004
22LHR000172	307168	6533207	1343	0.007	0.5	0.026
22LHR000173	307207	6532856	1318	0.026	1	0.224
22LHR000174	307361	6532700	1326	0.008	1	0.004
22LHR000175	307368	6532700	1318	0.008	2	0.01
22LHR000176	307432	6532720	1327	0.34	1	0.175
22LHR000177	307570	6532660	1363	0.665	9	0.155

Sample ID	WGS Easting	WGS Northing	RL	Au_ppm	Ag_ppm	Cu%
22LHR000178	306869	6531666	1360	0.007	0.5	0.004
22LHR000179	306688	6531765	1365	0.011	0.5	0.004
22LHR000180	306633	6531789	1372	0.303	1	0.08
22LHR000181	306644	6531815	1372	0.07	1	0.034
22LHR000182	306610	6531896	1359	0.008	1	0.001
22LHR000183	306558	6531935	1356	0.579	1045	2.736
22LHR000184	306542	6531924	1354	0.362	1495	4.118
22LHR000185	306927	6530809	1387	0.074	8	0.181
22LHR000186	306928	6530805	1384	0.048	2	0.173
22LHR000187	306930	6530802	1384	0.073	0.5	0.148
22LHR000188	306932	6530799	1384	0.052	0.5	0.438
22LHR000189	306933	6530799	1384	0.045	0.5	0.124
22LHR000190	306934	6530799	1384	0.054	0.5	0.1
22LHR000191	306935	6530798	1384	0.076	0.5	0.249
22LHR000192	306938	6530797	1384	0.084	1	0.212
22LHR000193	306939	6530793	1382	0.1	1	0.38
22LHR000194	306940	6530794	1385	0.174	0.5	0.313
22LHR000195	306941	6530792	1385	0.142	0.5	0.226
22LHR000196	306942	6530790	1385	0.156	0.5	0.271
22LHR000197	306945	6530789	1384	0.12	0.5	0.142
22LHR000198	307002	6530665	1396	2.74	0.5	0.606
22LHR000199	307006	6530669	1395	0.556	2	0.354
22LHR000200	307037	6530256	1414	0.202	0.5	0.008
22LHR000201	307021	6530234	1424	0.018	1	0.019
22LHR000202	307020	6530234	1424	0.39	0.5	0.035
22LHR000203	307011	6530219	1417	1.16	1	0.048
22LHR000204	307010	6530217	1421	0.228	0.5	0.207
22LHR000205	306998	6530192	1430	0.057	0.5	0.06
22LHR000206	306973	6530176	1427	2.69	1	0.112
22LHR000207	306980	6530190	1429	0.399	0.5	0.339
22LHR000208	306847	6530180	1448	0.01	0.5	0.027
22LHR000209	307062	6530017	1425	0.067	0.5	0.103
22LHR000210	307154	6530036	1406	0.351	0.5	0.052
22LHR000211	307148	6530014	1403	0.306	1	0.291
22LHR000212	307123	6530136	1399	0.025	0.5	0.051
22LHR000213	307114	6530149	1403	0.046	2	0.015
22LHR000214	306694	6532311	1287	4.53	3	1.657
22LHR000215	306759	6532303	1283	0.018	2	0.348
22LHR000216	306761	6532306	1285	0.083	0.5	0.18
22LHR000217	306759	6532309	1282	3.26	7	0.867
22LHR000218	306747	6532314	1282	0.155	0.5	0.586
22LHR000219	306619	6532288	1283	0.077	0.5	1.98
22LHR000220	306639	6532309	1283	0.046	1	0.033
22LHR000221	306638	6532310	1285	0.02	0.5	0.041
22LHR000222	306662	6532335	1285	0.0025	0.5	0.01

Sample ID	WGS Easting	WGS Northing	RL	Au_ppm	Ag_ppm	Cu%
22LHR000223	306648	6532368	1285	0.0025	1	0.008
22LHR000224	306640	6532372	1278	0.0025	1	0.008
22LHR000225	306643	6532377	1281	0.005	1	0.013
22LHR000226	306642	6532381	1278	0.02	1	0.058
22LHR000227	306645	6532393	1275	0.01	0.5	0.015
22LHR000228	306652	6532395	1274	0.009	0.5	0.027
22LHR000229	306663	6532412	1271	0.0025	0.5	0.002
22LHR000230	306666	6532413	1269	0.0025	1	0.003
22LHR000231	306685	6532436	1268	0.0025	0.5	0.003
22LHR000232	306711	6532436	1285	0.0025	1	0.003
22LHR000233	306718	6532447	1273	0.018	0.5	0.009
22LHR000234	306717	6532466	1270	0.0025	0.5	0.024
22LHR000235	307035	6532415	1275	0.0025	1	0.003
22LHR000236	307064	6532386	1270	0.0025	0.5	0.008
22LHR000237	307076	6532390	1275	0.009	0.5	0.01
22LHR000238	307101	6532356	1281	0.164	0.5	0.458
22LHR000239	308061	6528450	1584	0.345	1	0.002
22LHR000240	308063	6528448	1584	0.371	1	0.002
22LHR000241	307995	6528439	1586	0.098	0.5	0.005
22LHR000242	308016	6528437	1583	0.072	0.5	0.004
22LHR000243	308060	6528445	1582	0.007	1	0.005
22LHR000244	308068	6528435	1585	0.089	1	0.001
22LHR000245	308163	6528453	1587	0.175	0.5	0.002
22LHR000246	308177	6528458	1599	0.043	0.5	0.008
22LHR000247	307116	6531623	1324	0.084	0.5	0.046
22LHR000248	307116	6531623	1319	0.254	2	0.035
22LHR000249	307116	6531622	1324	0.357	4	0.054
22LHR000250	307117	6531621	1325	0.693	3	0.043
22LHR000251	307116	6531633	1324	0.186	27	0.05
22LHR000252	307115	6531633	1320	0.092	18	0.036
22LHR000253	307116	6531632	1324	0.021	18	0.013
22LHR000254	307115	6531632	1323	0.082	6	0.037

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Riffle split RC samples were collected for each metre of drilling to obtain 1m samples from which approx. 4kg was split and sent to the ALS laboratory in Chile. The 4kg sample is crushed to -2mm from which a 1kg sample is split and pulverized to 85% passing -75µm and a 30g charge is taken for standard fire assay with AAS finish. Any multi-element assays are done using Multi-Element Ultra Trace method combining a four-acid digestion with ICP-MS instrumentation. A four-acid digest is performed on 0.25g of sample to quantitatively dissolve most geological materials. Elements and detection limits are presented below. Drillcore is cut in half with a diamond saw and half the core is sampled on a metre by metre basis. • Historical RC samples are collected at 1m intervals from RC-LLA-001 to RC-LLA-014 and then 2m intervals in RC holes numerically thereafter. Historical RC drilling samples were collected on a 2m basis and split to around 3kg using a single tier riffle splitter and sent to ALS Chile for sample preparation and analysis. Samples are dried at 70 degrees Celsius for up to 24hrs then the entire sample is crushed to -2mm and a 1kg sample is split and pulverized to 80% passing 150mesh. A 400 gram pulp is split off and a 30gram charge taken for Fire Assay and Cu and Mo with all assays by AAS. The AAS analytical procedures are ISO 9001:2008 certified and are in accordance with ISO/IEC 17025 • Samples of the historical drillcore recently sampled were half HQ core samples on a one metre basis and were submitted to ALS in La Serena. Samples are dried at 70 degrees Celsius for up to 24hrs then the entire sample is crushed to -2mm and a 1kg sample is split and pulverized to 80% passing 150mesh. A 400 gram pulp is split off and a 30gram charge taken for Fire Assay and multi element assays using ICPMS and OES. • Soils were collected by clearing topsoil then digging to the "B-Horizon" is collected and passed through a -1mm sieve to collect approximately 600grams into a paper Geochem sample bag. A reference sample of approximately 100grams is put into labelled RC chip trays for future reference and the remaining 500gr is sent to the ALS laboratory in La Serena. The lab takes the entire sample which is pulverized to 85% passing -75µm and a 30gram charge is taken for fire assay then dissolved in a 4-acid digest with gold read by Atomic Absorption (Au-AA23). Silver and

Criteria	JORC Code explanation	Commentary
		copper were analysed by AA technique. The first 210 samples were analysed for copper at the ALS La Serena laboratory and in house using an Olympus Vanta "M series" Pxrf. Results were compared between the laboratory and the Pxrf and showed an R^2 value of 0.999. After sample 210 the Cu assays are done solely using the Pxrf machine. • Rockchips are collected by taking a sample using a geological hemmer to take an in situ sample of material from the rockface and at Llahuin are assayed for Au (AA23), Ag(AA62) and Cu(AA62) **REPORTABLE ELEMENTS AND RANGES** •
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Recent RC drilling was completed using a Schramm 685 RC drilling rig using a face sampling hammer with a 5.25inch diameter bit by R Muñoz drilling. • Historical Drilling across the Llahuin Project area has been completed by

Method Code	Analyte	Unit	Lower Limit	Upper Limit
Au-AA23	Au	ppm	0.005	10.0

ME-MS61 Analytes and Reporting Ranges

Analyte	Units	Lower Limit	Upper Limit	Analyte	Units	Lower Limit	Upper Limit	Analyte	Units	Lower Limit	Upper Limit
Ag	ppm	0.01	100	Al	%	0.01	50	As	ppm	0.2	10000
Ba	ppm	10	10000	Be	ppm	0.05	1000	Bi	ppm	0.01	10000
Ca	%	0.01	50	Cd	ppm	0.02	1000	Ce	ppm	0.01	500
Co	ppm	0.1	10000	Cr	ppm	1	10000	Cs	ppm	0.05	500
Cu	ppm	0.2	10000	Fe	%	0.01	50	Ga	ppm	0.05	10000
Ge	ppm	0.05	500	Hf	ppm	0.1	500	In	ppm	0.005	500
K	%	0.01	10	La	ppm	0.5	10000	Li	ppm	0.2	10000
Mg	%	0.01	50	Mn	ppm	5	100000	Mo	ppm	0.05	10000
Na	%	0.01	10	Nb	ppm	0.1	500	Ni	ppm	0.2	10000
P	ppm	10	10000	Pb	ppm	0.5	10000	Rb	ppm	0.1	10000
Re	ppm	0.002	50	S	%	0.01	10	Sb	ppm	0.05	10000
Sc	ppm	0.1	10000	Se	ppm	1	1000	Sn	ppm	0.2	500
Sr	ppm	0.2	10000	Ta	ppm	0.05	500	Te	ppm	0.05	500
Th	ppm	0.01	10000	Ti	%	0.005	10	Tl	ppm	0.02	10000
U	ppm	0.1	10000	V	ppm	1	10000	W	ppm	0.1	10000
Y	ppm	0.1	500	Zn	ppm	2	10000	Zr	ppm	0.5	500

Criteria	JORC Code explanation	Commentary
		three different drilling companies. They include HSB Sondajes, Geosupply and R Muñoz Ltd for both RC drilling and diamond drilling. Historical diamond drilling was HQ core size and was not orientated.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Recent RC Samples were weighed and weights recorded to ensure recovery is acceptable. RC driller lifts off between each metre to ensure sample separation between each metre. There doesn't appear to be a relationship between sample recovery and grade as sample recovery is excellent. A booster and auxiliary compressor were utilized to keep all RC samples dry. • Historical RC drilling encountered water table ie wet samples between 20 to 100m depth. The water table is generally encountered between 20m and 100m from surface. Where the water table is encountered, a rotary splitter is used to assist with RC sample quality. Approximately sixty percent (60%) of the RC samples are reported to be wet. This issue has been partially remediated by using diamond drilling in preference to RC drilling for all further historical resource definition drilling. AMS concluded no significant bias in using the wet RC drill holes. • Historical RC and DC drilling and data collection methods applied by SHM have been reviewed by AMS during successive site visits for the historical drilling.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• The samples were geologically logged on site. Logging was both qualitative and quantative in nature for both recent drilling and historical drilling. All drillcore and RC drillholes were logged in entirety. All core was photographed and the photographs catalogued. • Soil data capture sheets are handwritten recoding the GPS location, sample number, the GPS point number, Depth of sample and colour.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• RC samples were collected into a green plastic bag which is then riffle split into a numbered calico bag for each metre of drilling. The majority of the RC samples were dry as holes were stopped if the RC drilling went wet. If significant groundwater was encountered an auxiliary compressor and booster were utilized to keep the sample dry. Field duplicates were not

Criteria	JORC Code explanation	Commentary
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	collected but can be split later to confirm results. • Historical DC samples are taken on 2m intervals. In some places, this sample interval overlaps lithological contacts, although contacts are hard to determine in places due to pervasive alteration. Drill core has not been orientated for structural measurements. The core is cut lengthways with a diamond saw and half-core is sent for assay. The half-core is bagged every 2m and sent for preparation, while the remaining half-core is returned to the labelled cardboard core box. A cardboard lid is placed on the box, and it is stored in a newly constructed weatherproof storage facility (warehouse) for future reference • There is no relationship between the sample size and the grain size of the material being sampled
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• The assay technique utilized is "industry Standard" fire assay with AAS finish for gold which is a total digestion technique. • For the **Recent Drilling** appropriate industry standard CRM' s and blanks were inserted into the sample stream at a rate of 1:10 samples for both standards and blanks. This is considered above industry standard for the recent drilling and there is no apparent bias of any significance. • **Historical drilling -** Blanks and field duplicates are inserted at irregular intervals, at a range of between 1:20 and 1:50. • A total of 1,738 laboratory standards have been analysed in a large variety of Cu and Au grade ranges, and there is no apparent bias of any significance (AMS June 2013) • A total of 462 blanks have been inserted into the sample stream (RC and DDH). • Soil samples are analysed by a handheld Olympus Vanta "M series" Pxrf instrument using a 90 second read time for all samples using the three beam method. No calibration factors have been used with the Pxrf. • The Olympus supplied standard and blank is read approximately every 20 samples and this data is entered into an appropriate spreadsheet. No obvious problems are apparent in the QAQC data for the Pxrf.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data*	• The company's exploration manager (QP) has made a site visit and inspected the sampling methods and finds them up to industry standard for the recent drilling. • Prior to March 2012, DDH was performed predominantly as tails at the

Criteria	JORC Code explanation	Commentary
	verification, data storage (physical and electronic) protocols. • *Discuss any adjustment to assay data.*	termination of some of the RC holes. DDH performed from April 2012 has been from the surface with a total of 4 diamond drill holes twinned to pre-existing RC drill holes. Twin hole drilling was completed across the Central Porphyry and Cerro De Oro zones. AMS concluded that there is insufficient data to make a definitive comparison, and that the twins are sufficiently far enough apart to explain some of the grade differences. No new drilling has been twinned yet. • Logging is completed into standardized excel spreadsheets which can then be loaded into an access front end customized database for all sample types. • There have been no adjustments to the assay data. • Historical sampling and assaying techniques were independently verified by Mr. Bradley Ackroyd of Andes Mining Services who undertook a site visit to the Llahuin Copper-Gold Project between 5 th and 8 th of May 2013. He inspected the drill sites, drill core and chips, logging, sample collection and storage procedures as well as the office set-up and core processing facilities. Mr. Ackroyd also observed all the available surface exposures of the deposit across the Llahuin project area. In addition, Mr. Ackroyd undertook a short review of the quality control and assurance procedures employed at the project site.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	The precision of the standard hand held GPS units is poor in this region of Chile so a licensed surveyor was employed to pick up the new drillhole locations and the topography. The survey was performed by Mr. Luciano Alfaro Sanders using a total station instrument. The collars picked up to within 0.1m accuracy. This accuracy was not able to be checked, however the relative positions of the drill holes has been confirmed during the site visits. Soil samples are located using a Garmin GPS78 handheld unit which is typically accurate to 3m. Sample locations are also checked by comparing the GPS location to the Orthophoto where possible. A GPS location point is recorded in the GPS for every sample location and also in a handwritten data capture sheet. The GPX file is then downloaded from the GPS and visually checked for spatial accuracy in appropriate spatial software either QGIS or Micromine. Rockchip locations are recorded using a handheld GPS and a written

Criteria	JORC Code explanation	Commentary
		sample date entry sheet which is then transferred in to a data loading sheet. The GPX file from the GPS is then checked spatially against the data sheet using QGIS.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• The recent drillhole spacing is approx. 20 to 40m spaced holes in various locations. • Drilling was completed within an existing resource and scout type drilling was completed in previously undrilled areas. • Historical drilling was completed at The Central Porphyry, Cerro de Oro and Ferrocarril zones have been drilled on a nominal spacing of 50m by 50m in the upper portions and 100m x 100m in the lower portions of the deposits. • No sample compositing has been applied in the recent drilling and 2m composites were taken in part of the historical drilling. • Soil samples were collected on a nominal 200m line spacing with 50m sample spacing along lines. Infill soils are collected on a nominal 100m line spacing and 25m sample spacing. The sample line spacing was designed using the Central Porphyry surface footprint as a guide. No sample compositing has been used. • Rockchips have no grid spacing.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The drilling was done perpendicular to the **interpreted strike** of the mineralisation to reduce sampling bias. • Soil samples are collected across the interpreted strike of the geology ie on east-west orientated lines.
Sample security	• *The measures taken to ensure sample security.*	• Samples were collected by a qualified consulting geologist and the samples were delivered to the lab by a company employee. Competent Person Reg No 0336. • Soil samples are placed into sealed plastic bags for transport by either company personnel or courier. The large plastic bags are stapled shut and the laboratory is aware to inform us if they have been opened during transport by the courier but no issues have arisen from this procedure,
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Andes Mining Services completed an external audit and review in 2013 of the historical drilling and sampling procedures. • No external audit or review has been conducted on the recent sampling

Criteria	JORC Code explanation	Commentary
		procedures, partly due to COVID travel restrictions.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Llahuin Project is 100% owned by SUH. • The security of tenure is considered excellent as the licence is 100% owned by SUH.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous drilling on the licence before SUH has been done to industry standard as per AMS report (SUH press release 19th August 2013).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Exploration is targeting porphyry Cu-Au style-gold style mineralization hosted in intrusives and breccias.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• Appendix 1

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*	• No data aggregation methods have been used. • A copper equivalent was reported using the following metal prices Cu $3.20, Au $1700/oz, Ag $20/oz and Mo $30/kg.

Criteria	JORC Code explanation	Commentary
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Exploration drilling was targeting near surface material in a porphyry Cu-Au system. Therefore the mineralised widths are much greater than the drillhole depths for the Central Porphyry. Drilling at Cerro De Oro is partly infilling historical drilling so therefore downhole widths have been reported and true widths are not established yet as the historical drilling appears to be too widely spaced. Drilling in all areas has been conducted perpendicular to the regional trend observed in outcrop.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Appropriate maps have been included in the release.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• A range of grades were included in the release.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• A drone magnetics survey was completed over the project area in 2021 by GFDas UAV Geosciences Santiago Chile. Survey specifications provided below. • Company: GFDAS Drones and Mining Line direction: 90°-270° Line separation: 25m Tie line Direction: 0-360 Tie lines separation: 250m Flight Height: around 25m AGL following topography (according to operational safety conditions) Registration Platform Mag: DJI M300 Drone Registration Platform Topo/ortho: DJI Phantom RTK Pro Drone Geoidal Model: EGM08 Flight speed: 5-10m/s Mobile sampling: Fluxgate magnetometer, 25 Hz Resolution: Digital Elevation Model 1 m and Resolution: Orthophoto with 20 cm/pixel Base sampling: Geometrics magnetometer sampling 30s.

Criteria	JORC Code explanation	Commentary
		Positioning: Phantom 4 RTK Survey Module: The flight module uses a VTOL drone, powered by rechargeable electric batteries and a positioning system with three GPS antennas. The registration module was miniaturized, simplified and made of low weight components suitable for lifting by the drone. These correspond to the magnetometer, acquirer and analogue-digital converter. Magnetic Survey: The data was corrected for Diurnal variances, micro levelled with the use of the tie lines by GFDAS Drones and Mining. They also applied the Reduction to the Pole process on the data (inclination -32.3° and 0.4° declination) that was supplied to our company. Topographic flight plan: Due to the strong differences in the elevations of the terrain, it was flown from different points within the north-south polygons with differentiated flight height, to achieve a pixel resolution as requested. These flight heights had a range between 350 m and 460 m (AGL flight height). The overlaps of flight lines were between 75% and 80%, this was done depending on the flight height and detail required.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Additional soil sampling is planned for the Llahuin Project. • Additional rock chip sampling is planned. • Re-logging of historical drillcore is in progress • Sulfide mapping of the pulps is also planned to assist with the new geological model currently in development