

FURTHER ENCOURAGING RESULTS FROM COPPERFIELD PROSPECT

HIGHLIGHTS

- Further encouraging copper-gold results from rock samples collected at the Copperfield Regional Prospect, including:
 - **7.40 g/t Au** (23019)
 - 4.82 g/t Au (23020)
 - **4.36 g/t Au** (23016)
 - **3.43 g/t Au** (23021)

- 2.55 g/t Au (23018)
- 1.79 g/t Au (23022)
- 2.12% Cu (23033)
- 1.10% Cu (23034)
- New results build on previous maximum gold values of 4.1g/t Au and 6.5% Cu from initial reconnaissance mapping¹.
- Gold mineralised strike at Copperfield 4 has increased more than 200m on a northwest trend (Figure. 1).



Figure 1 – Regional gold and copper results from the Copperfield 4 and Copperfield 5 targets, overlain previous results.

• Diamond Drilling (DD) continues at the Fenton Gold Project, targeting gold bearing intervals corresponding to the position of the Fenton Shear Zone (FSZ).

¹ASX Announcement: Encouraging initial rock results from Fenix up to 4.1g/t Au & 6.5% Cu (31st January 2023)



DeSoto Resources Limited (ASX:DES or 'Company') is pleased to announce further regional geochemical results from its Pine Creek Gold Project, located in the Northern Territory.

Regional exploration sampling completed at Shoobridge, Tabletop and Copperfield collected a total of 34 rock, 96 stream and 90 soil samples over a three-week period. The regional program targeted potential lithium, copper and gold mineralisation.

A total of 34 rock and 90 soil samples are reported herein for the Copperfield 4, Copperfield 5 and Shoobridge areas (Figure 2). The geology of the Copperfield area consists of prospective Paleoproterozoic sediments of the Burrell Creek Formation intruded by the Tabletop Granite where several NW-SE trending shears have been identified.



Figure 2 – Location of new regional geochemical samples and best rock assays



At Copperfield 4, new soil and rock sampling was designed to investigate the anomalous gold rock assays reported in January 2023².

Multiple >1g/t Au results were returned from the new rock samples along a northwest trend, with a best result of 7.4g/t Au (23019), and anomalous Cu up to 0.16% (23020 & 23021; Figure 3, Table 1). Elevated bismuth up to the anomalous gold-copper assays were reported from in-situ brecciated iron-stained quartz veins in sandstone which partly correlate with a wider >3ppb Au in soil anomaly (Figure 3).

These encouraging new results have extended the strike of the previously defined Copperfield 4 prospect by approximately 200m to the northwest and require follow-up mapping to define target structures.



Figure 3 – Copperfield 4 prospect with current and historical rockchip and soil samples.

At Copperfield 5, a total of 9 rock samples were collected with best results up to 2.1% Cu returned from gossanous quartz rich sandstones with malachite and chalcopyrite adjacent to workings (Figure 2).

²ASX Announcement: Encouraging initial rock results from Fenix up to 4.1g/t Au & 6.5% Cu (31st January 2023)



Table 1 – Significant Rock samples

SampleID	East	North	RL	Au	As	Ag	Bi	Cu	Pb	Sb	Zn	Rock Description	Licence	Area
	(MGA94z52)	(MGA94z52)	(m)	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm			
23001-23034 - Total 34 samples	Refer to Figures for most sample locations	Refer to Figures for most sample locations												
23002	741982	8505656	167	0.11	37.1	1.4	2	0.003	6.7	3	6	Quartz	EL32885	Shoobridge
23016	802230	8465078	228	4.36	244	13.7	3010	0.072	116.5	13	7	Silicified quartz sandstone, ferruginous	EL31356	Copperfield 4
23017	802183	8465119	239	0.72	100	12.6	742	0.039	133	5	10	Silicified quartz sandstone, Py in qtz, goethite veinlets	EL31356	Copperfield 4
23018	802151	8465141	233	2.55	66.6	4.2	576	0.145	183.5	8	8	Quartz ironstone	EL31356	Copperfield 4
23019	802146	8465130	233	7.40	9.9	5.2	1685	0.009	131	NSR	10	Silicified quartz breccia,iron stained	EL31356	Copperfield 4
23020	802230	8465098	234	4.82	307	14.9	2120	0.163	114.5	3	11	Silicified quartz breccia,iron stained	EL31356	Copperfield 4
23021	802234	8465078	228	3.43	352	10.6	6630	0.164	126.5	7	7	Silicified quartz breccia,iron stained	EL31356	Copperfield 4
23022	802139	8465159	233	1.79	76.2	6.6	493	0.023	63.3	2	9	Quartz-Goethite rock	EL31356	Copperfield 4
23024	802075	8465203	219	0.87	352	8.2	530	0.087	230	12	9	Quartz ironstone breccia	EL31356	Copperfield 4
23025	802090	8465202	219	1.36	356	5.2	224	0.042	339	15	9	Ferruginous quartz vein	EL31356	Copperfield 4
23026	803805	8465140	199	0.01	685	3.1	NSR	0.120	13.7	NSR	20	Sandstone qtz fe, Malachite	EL31356	Copperfield 4
23033	803981	8464862	184	0.06	495	6.9	26	2.120	23.1	NSR	45	Quartz sandstone with Cpy-Hm and iron staining	EL31356	Copperfield 5
23034	803973	8464862	184	0.01	719	13.6	30	1.105	21	NSR	60	Sandstone with Malachite staining, qtz	EL31356	Copperfield 5



Note: Rock samples with Au > 0.1ppm and / or Cu > 0.1% are tabulated, all other rock sample locations are shown on report figures only. Relative levels (RL) are nominal, NSR – No significant result.

Table 2 – Significant Soil samples Copperfield 4 EL31356

SampleID	East (MGA94z52)	North (MGA94z52)	RL (m)	Au ppb	As ppm	Ag ppm	Bi ppm	Cu %	Pb ppm	Sb ppm	Zn ppm
23TT001- 23TT090 - Total 90 samples	Refer to Figures for most sample locations	Refer to Figures for most sample locations									
23TT038	802150	8465037	230	24	NSR	7.9	NSR	0.001	5.8	NSR	9
23TT052	802026	8465118	207	7	NSR	3.7	2	0.002	4.3	NSR	12
23TT055	802100	8465121	226	12	NSR	6.6	2	0.002	5	NSR	12
23TT056	802126	8465119	226	4	NSR	7.6	3	0.004	5	NSR	11
23TT057	802150	8465122	233	5	NSR	10.2	3	0.005	6.4	NSR	11
23TT058	802177	8465120	239	9	0.3	12.9	17	0.012	8.6	NSR	13
23TT059	802203	8465118	240	7	0.1	11.3	7	0.012	6.2	NSR	12
23TT065	802099	8465160	228	4	NSR	5.5	3	0.002	5	NSR	12
23TT066	802125	8465160	228	4	NSR	7.3	3	0.002	4.6	NSR	12
23TT067	802149	8465161	233	4	NSR	4.3	2	0.002	4.1	NSR	14
23TT085	802077	8465199	219	4	NSR	6.5	NSR	0.001	5.7	NSR	11
23TT086	802098	8465199	219	6	NSR	9.2	NSR	0.003	5	NSR	12
23TT087	802124	8465200	228	3	NSR	5.1	NSR	0.001	4.4	NSR	10
Note: Soil samples with Au > 3ppb are tabulated, all other soil sample locations are shown on report figures only. Relative levels (RL) are nominal, NSR - No significant result.											



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This release is authorised by the Board of Directors of DeSoto Resources Limited.

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COMPETENT PERSONS STATEMENT

The information in this report that relates to exploration results is based on and fairly represents information and supporting documentation prepared by Ms Bianca Manzi. Ms Manzi is an employee of the company, is a member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms Manzi consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

COMPLIANCE STATEMENT

DeSoto advises that it is not aware of any new information or data that materially affects the previous exploration results or mineral resource estimate contained in this announcement and all material assumptions and technical parameters underpinning the mineral resource estimate continue to apply and have not materially changed.



TABLE 3 – JORC CODE – GEOCHEM RESULTS

Section 1: Sampling Techniques and Data					
	JORC Code				
Criteria	Explanation	Commentary			
Sampling	Nature and quality of	The new sampling described in this report refer to rock			
Technique	sampling (eg cut	and soil samples.			
•	channels, random chips,				
	or specific specialised	Rock -Individual reconnaissance rock chip samples (0.4-			
	industry standard	1.2kg) were collected from gold and lithium prospects			
	measurement tools	using picks.			
	appropriate to the				
	minerals under	Soil – A single soil sample was collected from each			
	investigation, such as	location comprising a minimum of 1.0kg of -2.5mm sieved			
	downhole gamma	material collected from a 10cm interval. The sample			
	sondes, or handheld	depths are generally between 0.15m to 0.2m depth.			
	XRF instruments, etc).				
	These examples should	All rock and soil samples were submitted to ALS			
	not be taken as limiting	laboratory in Adelaide where sample prep was			
	the broad meaning of	performed. Sample pulps were then forwarded to ALS			
	sampling Include	Perth for analysis. Rocks and soils were analysed for trace			
	reference to measures	level Au (Au-TL43) and multi-elements Cu, Pb, Zn, As, Ag,			
	taken to ensure sample	Sb & Bi (ME-ICP43). Overrange results were reported for			
	representivity and the	Au (Au-AROR43) and Cu (Cu-OG46). Mn was also reported			
	appropriate calibration	for rocks.			
	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 submanne noquies)				
	of dotailed information				
	of detailed information.				



Drilling	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).	No drilling activities are being reported.
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.	No drilling activities are being reported.
Logging	Whether core and chip samples have been geologically and geotechnical 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/Trench, channel, etc) photography. The total length and percentage of the relevant intersections logged.	None of these samples will be used in a Mineral Resource estimation. All rock samples have been geologically logged in a qualitative fashion. Soils samples have not been logged.
Sub-Sampling Technique 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,	All samples are considered sufficiently representative of the sampled material in a geochemical program. Soils– minus 2.5mm soil samples were collected from ~ 20cm depth.



	 For all sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. 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. 	No company standards and duplicates were included in the sample batches due to an oversight.
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.	All geochemical samples were submitted to ALS laboratory in Adelaide for prep and Perth for analysis as indicated below. Rocks and soils - Trace level Au was analysed for using 25g aqua regia (Au-TL43) with a 0.001ppm Au detection limit which is appropriate for a geochemical program. Over range Au rock samples were analysed by (Au-AROR43) and Cu (Cu-OG46) ALS CODE DESCRIPTION INSTRUMENT Au-AROR43 Au AR Overrange - 25g ME-OC46 Ore Grade Level Au - 25g Au by AR (CP-MS ME-OC46 Ore Grade Elements - AquaReqia Cu-OC46 Ore Grade Cu - Aqua Reqia No company standards were inserted in the sample batches. The results of laboratory QC, standards, blanks, duplicates and checks indicate the analytical results are suitable for a geochemical program and indicate no bias.



Verification of Sampling and Assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes The verification of significant intersections by either independent or alternative company personnel. Discuss any adjustment to assay data	No verification of sampling has been conducted. Over grade assay samples were re-analysed by appropriate methods as indicated in Quality of Assay Data and Laboratory Tests section above.
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 Ouality and adequacy	Geochemical samples were located using a hand held GPS with a location error of +/-15m. All co-ordinates are recorded in Geocentric Datum of Australia 1994 (GDA94), MGA Zone 52 - Southern Hemisphere. Heights were not recorded by the field crew so a nominal Relative Level (RL) has been assigned using SRTM surface.
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	Rock samples were collected at random intervals as deemed appropriate. Soil sampling was conducted on 10, 40m spaced lines with samples collected every 25m along EW traverses. This type of sampling is not appropriate for the calculation of any Mineral Resource estimate. No compositing has been applied.
Orientation of Data in Relation to Geological Structure	applied Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Rocks were collected from outcrops as appropriate. Samples will be biased to outcrop rather than covered areas and known structures. The sampling of structures is considered unbiased. Soil sampling was conducted along EW lines, structure orientation undetermined but believed to be NNW.



Sample Security	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 measures taken to ensure sample	All samples were collected, bagged and transported by Desoto staff to ABC Transport in Darwin where they
	security	were paileted and dispatched to ALS labs in Adelaide for sample prep. ALS Adelaide then forwarded pulps to ALS Perth for analysis.
Section 2 Reportin	g of Exploration Results	
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 Pine Creek Project comprises nine contiguous exploration licences (EL31356, EL32148, EL31899, EL32884-32886, EL33188-33189, and EL33225) and one application ELA33450 covering an area of 1,893 km ² . The licences are held by Mangusta Minerals Pty Ltd, a 100% owned Desoto subsidiary. The Project is located approximately 150 km south of Darwin, and 8 km north of Pine Creek in the Northern Territory. Access to the Pine Creek Project is from the sealed Stuart Highway Hayes Creek via the sealed Dorat Road and Oolloo Roads and then via well maintained gravel roads.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	The majority of past exploration work within the Project area (including drilling, surface sampling; geophysical surveys, geological mapping) has been largely completed by Homestake Gold of Australia, North Mining, Newmont Australia, St George Mining Pty Ltd, Aztec Mining Ltd, AngloGold Australia, Davos Resources and Thundelarra Exploration The relevant reports are available on the Northern Territory Geological Survey GEMIS open file database library. A summary of previous work completed can be found in the company prospectus at <u>www.desotoresources.com</u>
Geology	Deposit type, geological setting and style of mineralisation.	The Project is located in the western and central sections of the Central Domain of the Pine Creek Orogen and comprises units of the Cosmo Supergroup which include the South Alligator Group, and Finniss River Group. The stratigraphic sequences are dominated by mudstones, siltstones, greywackes, sandstones, tuffs, and limestones.



		These sedimentary units, as well as basic intrusions, were folded, metamorphosed, and then subsequently intruded by the Cullen Batholith. Pegmatites occur throughout the region in close proximity to the Cullen Granites. The Pine Creek Project is considered prospective for orogenic Pine Creek gold mineralisation and pegmatite hosted lithium (spodumene) mineralisation. The majority of known gold deposits are hosted by the South Alligator Group and the lower parts of the Finniss River Group along anticlines, strike-slip shear zones and thrusts proximal to the Cullen Granite.
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 • hole length • lf 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	No drilling completed. Sample locations are provided in Table 1 and 2, and on report figures.
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.	No weighted average or truncation methods were used for the assay results. No cut-off grade was applied grade calculation.



	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. 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	Not applicable to single point surface sampling.
	hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
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.	An appropriate map is provided in report.
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should	All significant results are reported in Table 1 and 2.



	be practiced to avoid misleading reporting of Exploration Results.	
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.	Exploration work by previous explorer for lithium is minimal and has largely been of a preliminary or reconnaissance nature. The Company is aware of regional scale aeromagnetic surveys and geological mapping programmes undertaken by past explorers and has access to versions of the data that is available in reports. Surface soils, rock chip sampling and reconnaissance drilling programmes have been undertaken over many parts of the Project area but is not lithium specific. This has not been fully compiled by the Company as yet.
Further Work	The nature and scale of planned further work (eg tests for lateral 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.	The stream, rock and soil sampling programme as well as mapping will continue in the northern and eastern licences with gold, copper and lithium being the focus. Followup sampling will continue as warranted especially in the Copperfield area where sampling continues to delineate mineralised structures.