ASX ANNOUNCEMENT

27 July 2022

Jamieson Tank Manganese & HPMSM Project Update

ChemX Materials (**ASX:CMX**) (**ChemX** or the **Company**), a materials technology company focused on providing critical materials required for electrification and decarbonisation, is pleased to provide the following update on its Jamieson Tank High Purity Manganese Sulphate Monohydrate (HPMSM) Project, focusing on the exploration activities at the Company's Eyre Peninsula tenements EL6634 and EL5920 in South Australia.

The ChemX Jamieson Tank HPMSM project is poised to become a vertically integrated project, with manganese ore to be sourced from its 100% owned manganese (Mn) project on the Eyre Peninsula, South Australia. ChemX intends to process ore based on a developed metallurgical testwork program. The first stage of HPMSM testwork was very encouraging (ASX announcement: 11 May 2022), with the second stage of testwork scheduled to commence in August 2022.

The collation and consolidation of historical exploration work, together with assays received from ChemX's 2022 drilling programme, provide significant confidence in the Jamieson Tank manganese mineralisation.

Key Highlights

- Extensive historical data search completed over tenements EL6634 and EL5920, including validation and consolidation of ChemX results, previous tenement owners, and South Australian Resources Information Gateway (SARIG) digital records into a managed industry standard DataShed database.
- Included capture of an additional +200 drill holes and +2000 surface samples dating from the 1950s to 2010s targeting multi commodity exploration.
- Integrated database will underpin a thorough interrogation of all historical exploration, enabling a focused strategy towards exploring and delineating critical materials required for electrification and decarbonization.
- Area work history documented including previous exploration works for metals: base metals, gold, kaolin/alumina, diamonds, silver, graphite, iron ore, uranium and manganese. Of particular focus for the development of the HPMSM project are the Manganese prospects (Figure 1):
  - Jamieson Tank (Mn)
  - Bunora West (Mn)
  - Hodgins (Mn)
  - Windyzell (Mn)
  - Francis (Fe, Mn)
  - Polinga (Mn)

- Majority of historical work focused on identifying high grade direct ship ore (DSO) manganese, with drilling completed between 2008 to 2012 on Jamieson Tank prior to ChemX ownership.
- ChemX focus on Jamieson Tank moved to High Purity Manganese Sulphate Monohydrate (HPMSM), with a completed initial Mn drilling program providing significant confidence in the Jamieson Tank manganese mineralisation. Further infill drilling is planned at Jamieson Tank.

High Purity Manganese Sulphate Monohydrate (HPMSM)

HPMSM is a critical part of many lithium battery cathode chemistries. Whilst manganese currently has a large and established global market, not all manganese is able to be efficiently upgraded to the more valuable HPMSM. ChemX has completed an initial HPMSM testwork program, designed to test the efficacy of Jamieson Tank Mn ore. First stage testwork results were very encouraging, with a second stage of HPMSM testwork scheduled to commence in August 2022.

The geological work undertaken by CSA Global Pty Ltd (CSA Global), combined with the HPMSM testwork program, has provided a solid foundation for the development of the vertically integrated HPMSM project.

Manganese Exploration Target - Eyre Peninsula, South Australia

Based on 2022 ChemX drilling and historical drilling data, mining consultant CSA Global has completed a geological re-interpretation and estimated a manganese Exploration Target for Jamieson Tank, summarised in Table 1.

Table 1: Exploration Target summary results

Exploration Target	Mineralisation	Tonnage (Mt)	Grade (% Mn)
Low Range	Manganese	21	7.5
Upper Range	Manganese	35	10.1
Total		**21 to 35**	**7.5 to 10.1**

**Totals may not sum correctly due to rounding.*

The potential quantity and grade of the Project's manganese is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if future exploration will result in an estimation of a Mineral Resource.

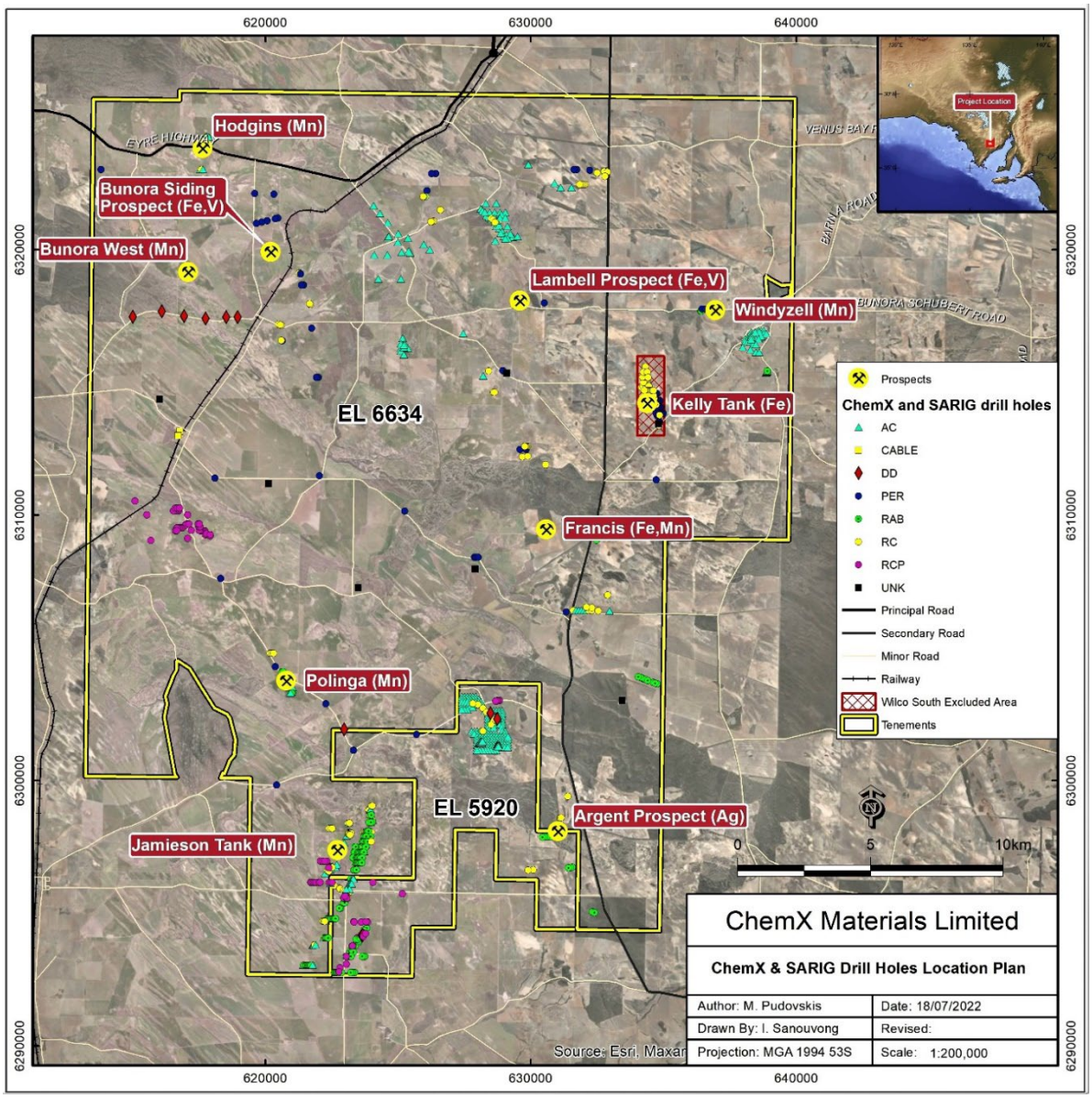

Figure 1 – Key prospects with now consolidated ChemX and SARIG Drill Hole data

Jamieson Tank Mn Exploration Target – Data, Methodology, Assumptions

The data used to estimate the Jamieson Tank Exploration Target comprised the Monax 2008 to 2012 drill data and ChemX 2022 drill data. The maiden 2022 ChemX drilling programme was aimed at improving confidence in the continuity of the previously identified manganese mineralisation at Jamieson Tank. The historical and 2022 drill data was reviewed by mining consultants CSA Global Pty Ltd (CSA Global) prior to the estimation of the Exploration Target.

Key assumptions supporting the Exploration Target include:

- Using Leapfrog Geo software, a total of 17 wireframes were created with the following assumptions:
- A grade driven manganese mineralisation interpretation was completed based on moderate to steeply east dipping mineralisation trends,
- A minimum of two metres (two by one metre samples) were used to define the wireframes

- The drill hole collar RL in the north was approximately 270RL with the model limit 170RL therefore a total depth extent of 100m was applied.
- The drill hole collar RL in the south was approximately 250RL with the model limit 170RL therefore a total depth extent of 80m was applied.
- The drill spacing is typically approximately 20m to 25m spaced holes on approximately 200m spaced sections.
- Total of 208 drillholes for a total of 11,276.5m used including 62 RC holes for 3,529 m; 117 RAB holes for 6,491 m; 29 AC holes for 1,256.5m. Not all drillholes were used in the determination of the Exploration Target.
- Several drillholes ended in manganese mineralisation.
- Mineralisation continuity on sections (across strike) is poor given the limited drilling down dip to define each wireframe. Additional drilling required as infill and also down dip. The extrapolation of wireframes along strike between the 200m spaced sections is ambiguous and requires infill drilling.
- A barren cover sequence was defined that includes sand, calcrete, and laterite.
- Density assumed to be 1.9 t/m3
- Oxide domains were not considered.
- Wireframes were extrapolated one drill spacing along strike where open, or half section spacing between where mineralisation appears to diminish or the extrapolation was not possible.
- An approximate cut-off of 6% Mn was used to interpreted mineralisation along with logged lithology.
- Tonnage ranges for the Exploration Target were taken as the Leapfrog wireframe Volume x Density (1.9 t/m3) +/- 25% for the Upper and Lower Ranges.
- Grade ranges for the Exploration Target were taken as the mean of the raw sample data for the Lower Range, and the 75th percentile for the Upper Range. Grades are length weighted.

Significant manganese drill intercepts and assays from the ChemX 2022 work programme were previously reported to the market in the ASX Release dated 23 June 2022.

Manganese drill intercepts form the representative schematic section Figure 3 and Figure 4 are included as Appendix 4.

Table 2 below outlines the results of the Exploration Target (as previously displayed above in Table 1).

Table 2: Exploration Target summary results

Exploration Target	Mineralisation	Tonnage (Mt)	Grade (% Mn)
Low Range	**Manganese**	**21**	**7.5**
Upper Range	**Manganese**	**35**	**10.1**
Total		**21 to 35**	**7.5 to 10.1**

**Totals may not sum correctly due to rounding.*

Geological Risks

The main geological risks include the poor mineralisation continuity on sections (across strike) given the limited drilling down dip to define each wireframe. Other risks include the absence of QAQC practices and the use of an assumed density in lieu of a measured density.

Recommended Work Programme

To mitigate the geological risks and test the validity of the Exploration Target, ChemX intends to undertake an infill drilling programme adopting all appropriate industry standard JORC compliance practices. These include but are not limited to, appropriate geological logging, data collection, assaying, survey, downhole density, QAQC practices, data management and Competent Person signoff of.

A drill hole and interpreted manganese mineralisation outline plan is included as Figure 1. Schematic representative cross sections are included as Figure 3 and Figure 4.

A summary of sampling techniques and data, estimation and reporting methodologies which support the Exploration Target is contained in JORC Table 1 which is included as Appendix 1 to this ASX release.

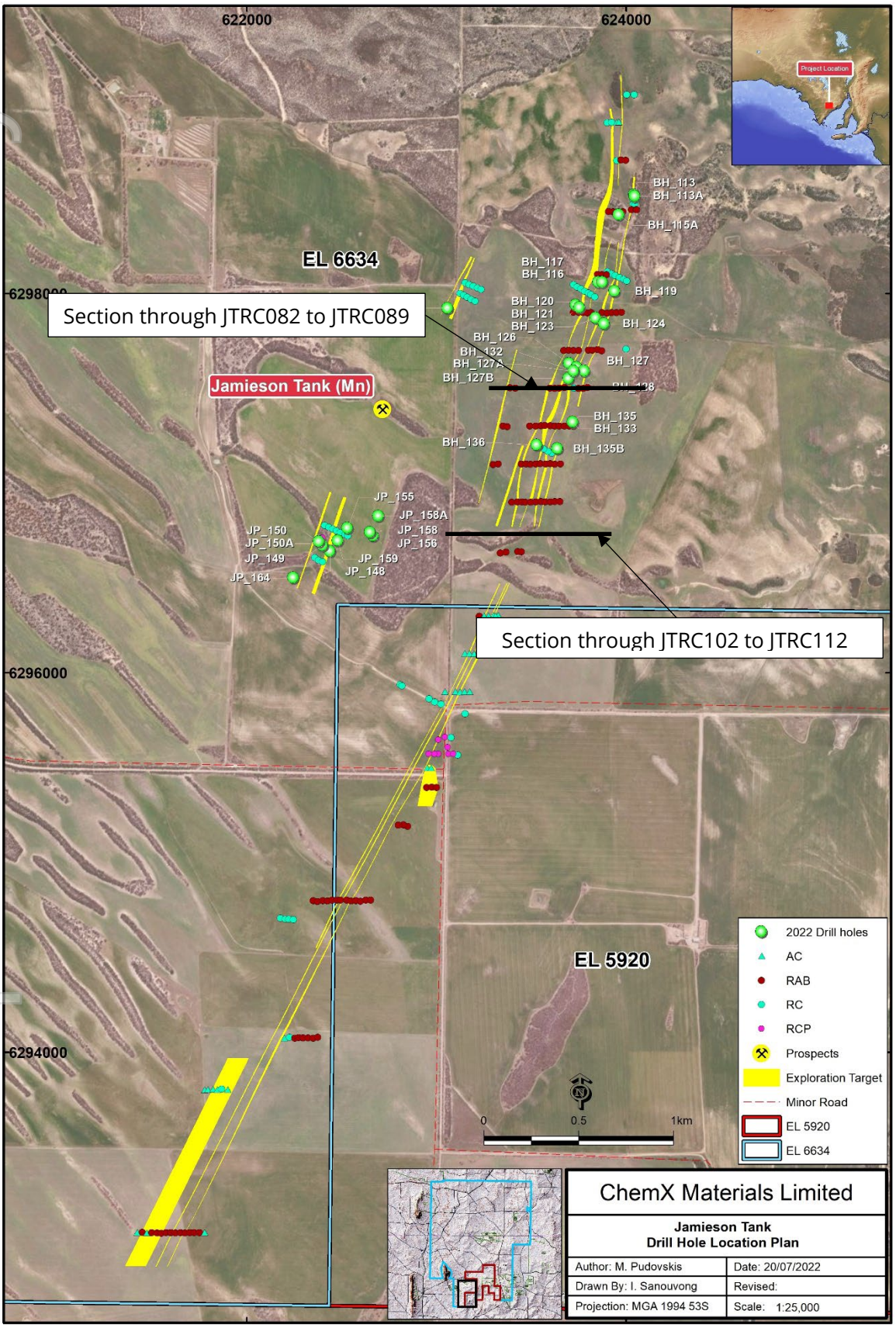

Figure 2: *Jamieson Tank drill hole and Exploration Target location plan*

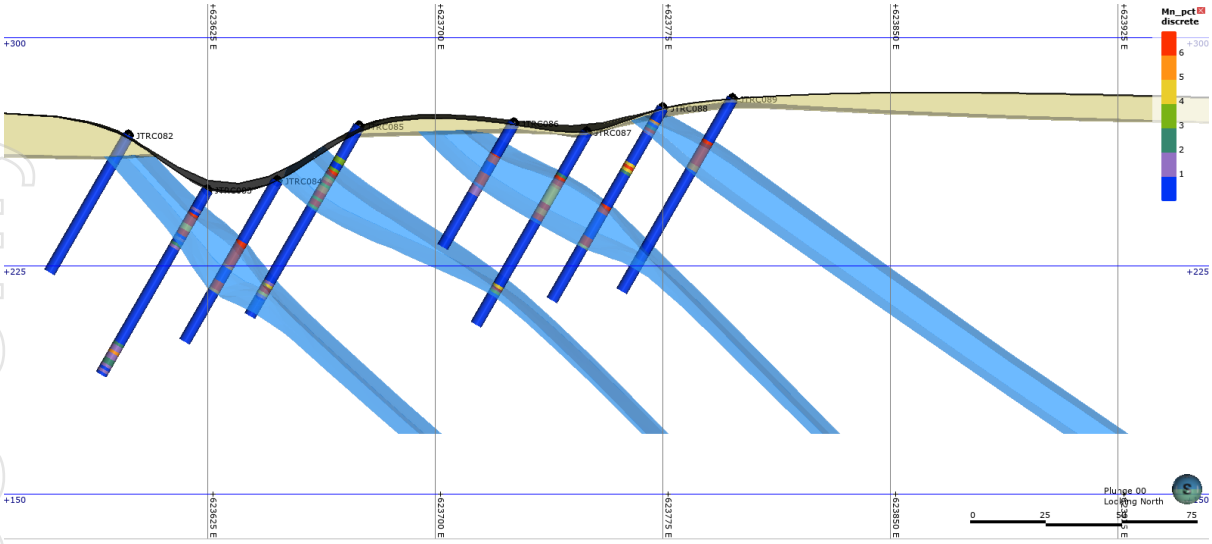

Figure 3: Schematic manganese mineralisation section through drill holes JTRC082 to JTRC089, view to north

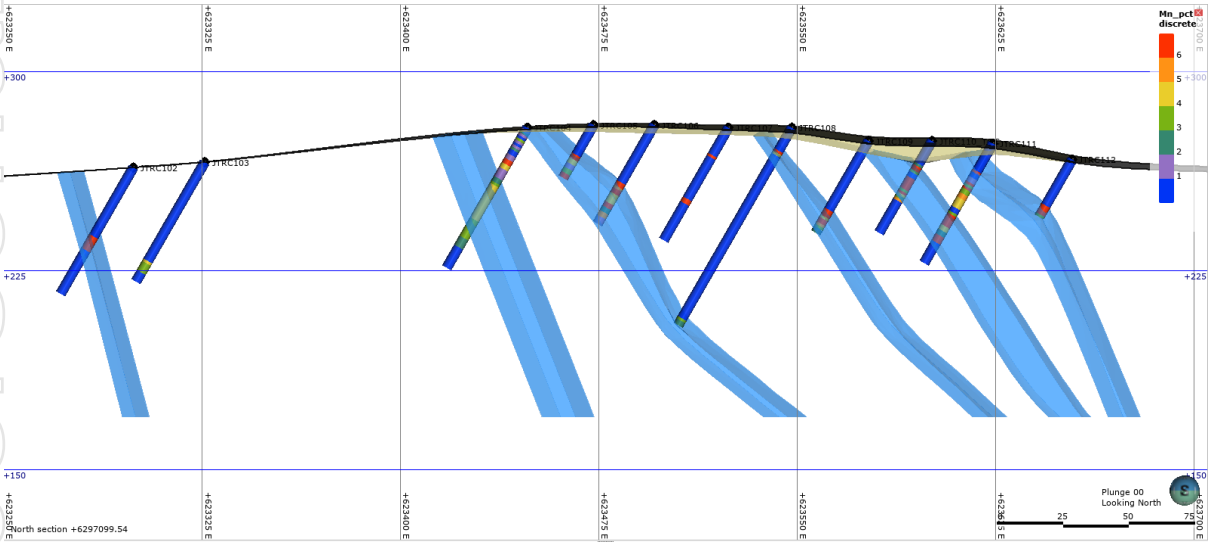

Figure 4: Schematic manganese mineralisation section through drill holes JTRC102 to JTRC112, view to

Additional Manganese Prospect - Hodgins

A review of historical drill data has confirmed the presence of significant manganese mineralisation on the Hodgins prospect. Significant grades include:

- 10m @ 29.2 % Mn (Drill hole HRC05 46 to 56m EOH)
- 20m @ 23. 8% Mn (Drill hole HRC05 22 to 42m)
- 11m @ 20.8 % Mn (Drill hole HRC03 9 to 20m)
- 14m @ 16.8% Mn (Hole HRC01 32-46m)

Further work is required to establish the grade and mineralisation continuity of the prospect.

A drill hole location plan is included as Figure 5 and schematic cross section (Archer, 201) as Figure 6. A drill collar summary table is included as Appendix 3.

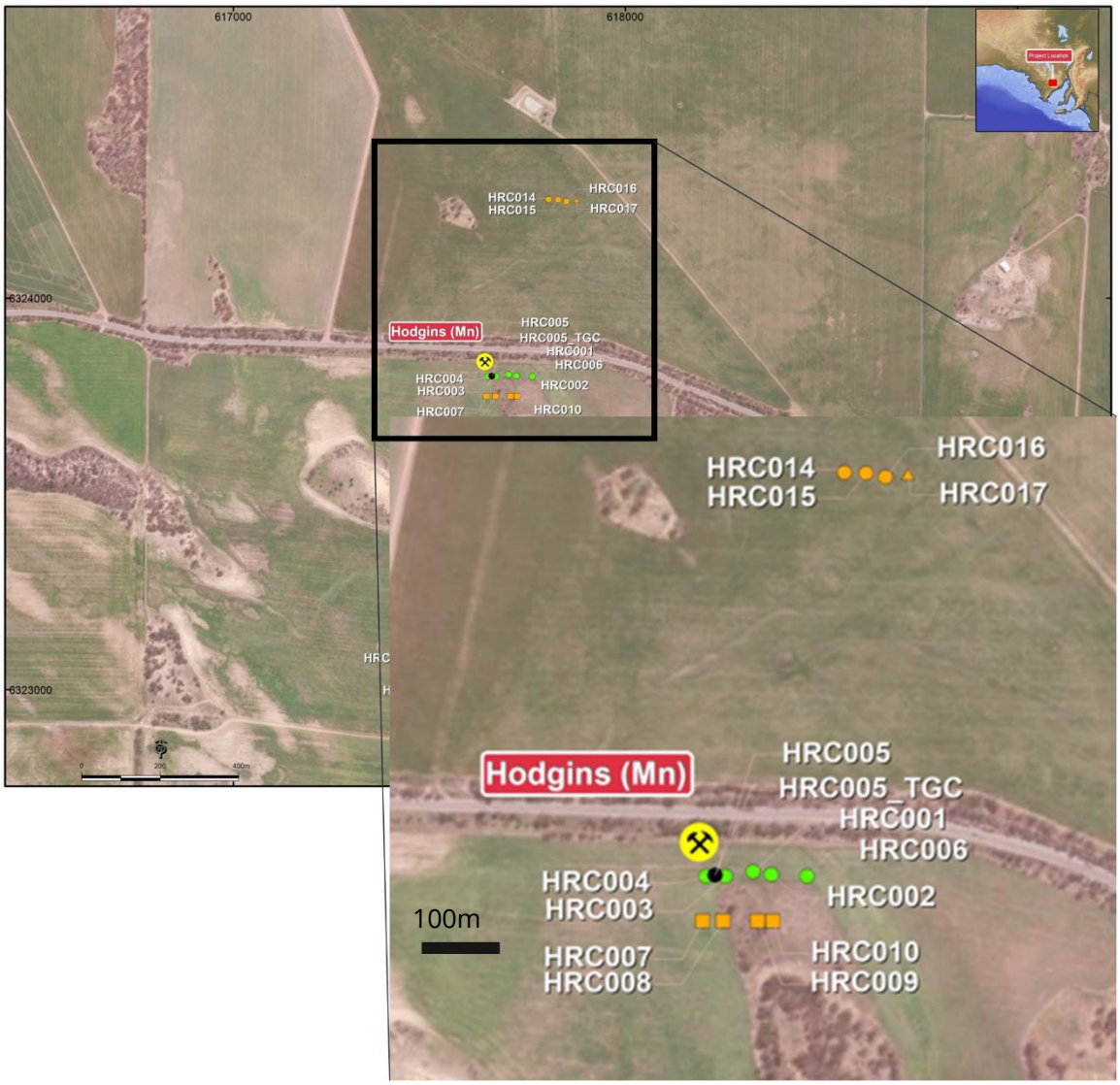

Figure 5: Hodgins manganese prospect drill hole location plan

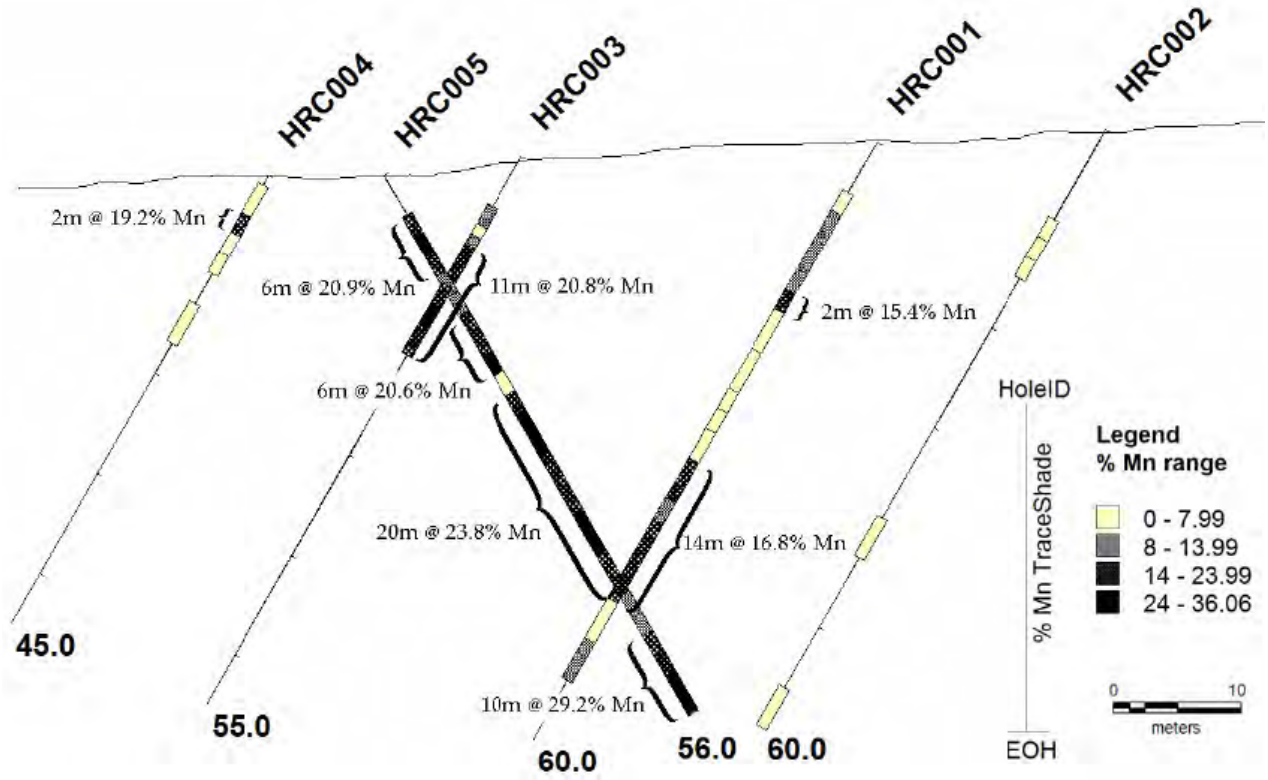

Figure 6: Hodgins prospect drill section and significant intercepts (Archer, 2011)

This Announcement has been authorised for release by the Board.

For enquiries:

David Leavy
Managing Director
ChemX Materials Ltd
david@chemxmaterials.com.au
+61 424 153 957

Peter Kermode
Associate Director
Cannings Purple
pkermode@canningspurple.com.au
+61 411 209 459

CONFIRMATION

The Company confirms that in relation to the previous reporting of exploration results on 23 June 2022, that it is not aware of any new information or data that materially affects the information included in the market announcement.

COMPETENT PERSON STATEMENT

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr Mark Pudovskis. Mr Pudovskis is a full-time employee of CSA Global Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Pudovskis has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Pudovskis consents to the disclosure of the information in this report in the form and context in which it appears.

About ChemX Materials (ASX: CMX)

ChemX is a materials technology company focused on providing critical materials required for electrification and decarbonisation. The Company's vision is to support the energy transition with materials and technology that provide real solutions to lowering carbon emissions.

Developed in-house, ChemX's HiPurA™ Process is a unique technology that is capable of producing high purity alumina (HPA) and high purity aluminium cathode precursor salts for lithium-ion batteries. Initial testwork has indicated that the process is low cost and low in energy consumption, compared to alternative technologies. A key competitive advantage is that the HiPurA™ process is not tied to mine production, with the feedstock being a widely available chemical.

The Company is developing its HiPurA™ HPA Project in Perth, Western Australia.

The South Australian Eyre Peninsula projects include the Kimba Kaolin-Halloysite Project and the Jamieson Tank Manganese Project. The Company is also assaying tenements for REE.

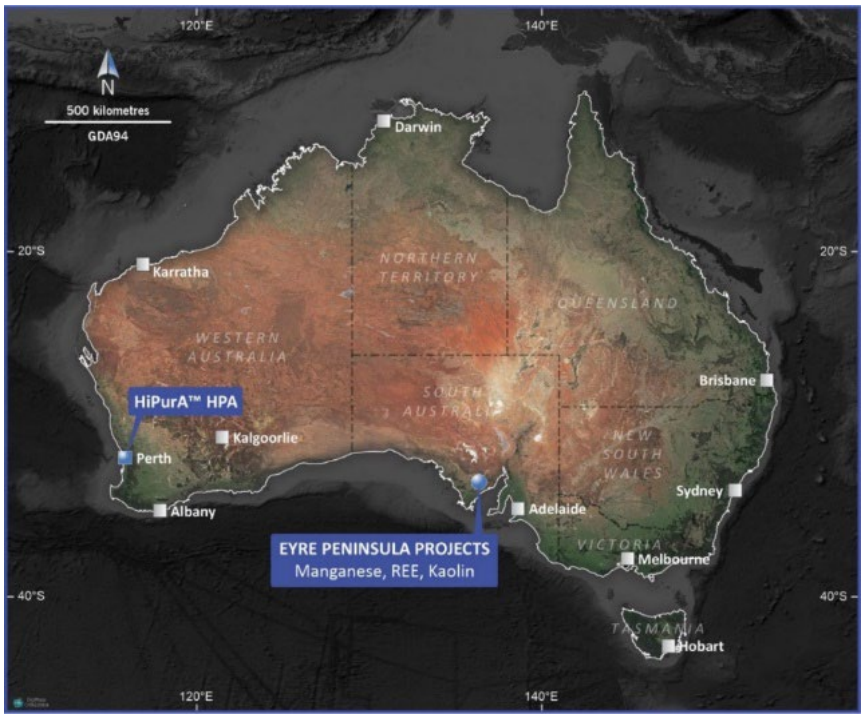

Figure 1 - ChemX Project Locations

www.chemxmaterials.com.au

ChemX LinkedIn

Directors

Kristie Young	**Non-Executive Chair**
David Leavy	**Managing Director**
Stephen Strubel	**Executive Director**
Warrick Hazeldine	**Non-Executive Director**

Appendix 1: JORC 2012 Table 1 Section 1

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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 (e.g. "RC 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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	The drill samples used in reporting the Exploration Results and Target were obtained through aircore (2022), and historical RAB, diamond core and reverse circulation percussion (RCP) methods. The majority of meaningful manganese work was completed by Monax Mining between 2005 to 2013. **2022 Drill Programme (ChemX Materials)** • The drill samples used for reporting the Exploration Target and Results were collected from Aircore methods and sampled at 1 metre intervals from surface to the end-of-hole (EOH) via a sampling collar fitted at the foot of the mast and thence via a delivery hose to a cyclone fitted with a large plastic bag attached to the base of the cone. • Drill intervals were later sampled using a 50mm diameter spear, and or trowel, as appropriate, following mixing or the sample in the polythene bags. • Samples were transferred as either single intervals or composite intervals, as required, to plastic bags, which were subsequently sealed, for assaying. **Historical Work 2005 to 2013 (Monax Mining)** • The RC drilling material was collected in green sample bags off a cyclone through a three-stage splitter on one metre intervals. A sample of each metre was sieved and washed, and the chips were placed out on hessian for geological logging and collection in chip trays. • Composite samples were collected by taking representative grab samples from individual metres. The Competent Person (CP) considers that the sample techniques adopted by ChemX and previous explorers are appropriate for the style of mineralisation and for reporting an Exploration Result.
Drilling techniques	• *Drill type (e.g. core, RC, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details*	**2022 Drill Programme (ChemX Materials)**

Criteria	JORC Code explanation	Commentary
	(e.g. 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.).	• The drilling was completed using a McLeod Drilling 6x6 Landcruiser mounted rig fitted with a NQ Aircore system and powered by a 200 psi, 400 cfm compressor. The rig has dual purpose capability. • The drill holes were vertical and uncased. • At the Jamieson Tank prospect, uncased holes were angle drilled -60 degrees, at an azimuth of 290° to 310° degrees. Both Aircore and DHH techniques were used where appropriate, depending upon the coherence of the strata. **Historical Work 2005 to 2013 (Monax Mining)** • All references are to most holes were drilled as Rotary Air bore (RAB) with a smaller number as Air Core (AC) drilling. The CP considers that the sample techniques adopted by ChemX and previous explorers are appropriate for the style of mineralisation and for reporting an Exploration Result.
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.*	**2022 Drill Programme (ChemX Materials)** • Sample recoveries were not generally recorded. However, if wet or damp zones were encountered and recoveries were visibly affected, the drilling would stop, and the cyclone and hose heads would be cleaned before drilling would continue. Between holes the cyclone was checked and cleaned as required. • It is believed that under normal ground conditions, limiting the down-hole intervals to 1 metre provided a satisfactory sample with no apparent down-hole sampling bias. • Where exceptionally poor ground conditions were encountered, mainly due to moisture down hole, resulting in partial blocking of the cyclone and delivery hose, or conditions that resulted in caving of the hole, the hole was abandoned and not sampled. **Historical Work 2005 to 2013 (Monax Mining)**

Criteria	JORC Code explanation	Commentary
		• The recovery of the historical drilling was not reported. The CP considers that the sample techniques adopted by ChemX and previous explorers are appropriate for the style of mineralisation and for reporting an Exploration Result.
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.*	**2022 Drill Programme (ChemX Materials)** • Intervals were logged as drilled based upon the sub-samples laid-out in rows on the black plastic sheet. • All logged intervals were representatively sampled and stored in chip tray, recording Hole ID and respective metres. • The intervals were logged according to essential mineralogy and character being generally ferruginous, manganiferous, or with calcrete; associations being in schist or heavy clays. • All intervals were logged broadly based on qualitative and quantitative characteristics. **Historical Work 200 to 2013 (Monax Mining)** • The chip samples were logged in a qualitative and quantitative manner, to a level of detail appropriate for reporting an Exploration Result The CP considers that the logging adopted by ChemX and previous explorers are appropriate for the style of mineralisation and for reporting an Exploration Result.
Subsampling 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.*	**2022 Drill Programme (ChemX Materials)** • Assay samples from the Jamieson Tank prospect were obtained by compositing sub-samples, obtained by trowel or spear, according to their perceived mineralogy, over a maximum interval of 5 metres. Material sub-sampled was in the main free-flowing and although it was not dried prior to sampling, it was judged to be sufficiently dry to minimize any

Criteria	JORC Code explanation	Commentary
	• *Quality control procedures adopted for all subsampling 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.*	bias during sampling and compositing. Individual sub-samples were approximately 0.2 to 0.25 kg. • Representative material from all drilled and sampled holes, and intervals, has been retained either in bulk (as recovered from the cyclone) or as a reference sub-sample (where the interval had no apparent interest), based upon geological or resource related criteria. • Given the styles of drilling used, and the resultant range of fineness within the cyclone capture, there is no evidence that the sample sizes are inadequate or inappropriate for sub-sampling using the techniques adopted. • The CP does not consider there is any bias in the sampling process. • No diamond core was collected. • No internal QAQC subsampling procedures were adopted. **Historical Work 2005 to 2013 (Monax Mining)** • No internal QAQC procedures were adopted and the sample representivity is unknown although no issues were reported in any of the Monax Annual Technical Reports. The CP considers that the sub sampling adopted by ChemX is appropriate for the style of mineralisation and for reporting an Exploration Result. The appropriateness of the historical work is unknown.
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy*	**2022 Drill Programme (ChemX Materials)** • All samples were assayed by ICP-MS for extended suite of elements including the standard silicate mineral-related elements. • Sample preparation consisted of a Lithium Peroxide fusion with an acid finish followed by ICP-MS analysis. • No geophysical tools have been used in the preparation of the Exploration Result. • No internal QAQC assay procedures were adopted.

Criteria	JORC Code explanation	Commentary
	(i.e. lack of bias) and precision have been established.	**Historical Work 2005 to 2013 (Monax Mining)** • Geochemical analysis of the 2009 RC drill samples was completed by Genalysis Laboratory Services. Sample preparation done in Adelaide includes drying and jaw crushing, followed by a single stage mix and grind in a Chrome-steel bowl. Samples are sent to Perth for digestion which included Four Acid Digest [AT/] for base metals and multi-elements, fusion for Fe ore using simultaneous XRF [Fus/], and 25 g Fire Assay Digest [FA25/] for gold. Analytical methods include: - AT/MS: Multi-acid digest including Hydrofluoric, Nitric, Perchloric and Hydrochloric acids in Teflon Tubes. Analysed by Inductively Coupled Plasma Mass Spectrometry - Fus/XRFm:: Sample fused with lithium borate flux and poured into a mould to obtain a homogenous glass disk. Major element oxides and trace elements by simultaneous XRF - FA25/SAAS: 25g Lead collection fire assay. Elements by solvent extraction and Flame Atomic Absorption Spectrometry The CP considers that a reasonable level of confidence can be placed in the accuracy and precision of the assay data used in the preparation of this Exploration Result.
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 verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	**2022 Drill Programme (ChemX Materials)** • Verification of sampling and assaying has not been undertaken on the assays being reported. • At this stage the company has no basis for twinning holes. • Primary data is stored securely by the company. • Independent reviews, visual presentations, interrogation, and integration of primary data is undertaken outside of the primary data bank, with supplementary or enhanced uploads as required. **Historical Work 2005 to 2013 (Monax Mining)** • No verification or adjustments to the assays have been made.

Criteria	JORC Code explanation	Commentary
		• Twinning is not appropriate for the style of mineralisation The CP considers that the verification of sampling and assaying was appropriate for reporting an Exploration Result.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	**2022 Drill Programme (ChemX Materials)** • Drill collar coordinates were measured using a handheld Garmin global positioning system unit in coordinate system MGA 94 53S. All drillholes were angled at -60° on a magnetic azimuth of approximately 270° to 310° • The drillholes were not downhole surveyed due to the relatively shallow depths. • There was no topographic control established. Given the terrain is relatively flat, the CP does not consider this a material risk. **Historical Work 2005 to 2013 (Monax Mining)** • Drill collar coordinates were measured using a handheld Garmin global positioning system unit in coordinate system MGA 94 53S. The CP considers that the accuracy of the survey was appropriate for reporting an Exploration Result.
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.*	**2022 Drill Programme (ChemX Materials)** • The Jamieson Tank results were based on a variable drill grid density and lateral distribution, for the purpose of infilling and lateral testing of the historical drilling. for the spacing is considered by the CP to have been appropriate for the reporting of Exploration Results only. Additional drilling is required to potentially establish and report a maiden Mineral Resource. • Sample compositing was applied according to the procedure detailed above. **Historical Work 2005 to 2013 (Monax Mining)**

Criteria	JORC Code explanation	Commentary
		• The spacing of the Jamieson Tank drill lines was on a variable and approximate 200m apart, which is adequate for reporting an Exploration Target. The drill holes on the Hodgins sections were approximately 20m spaced • No compositing has been applied. The drill spacings are not considered relevant or a material risk by the CP for the reporting on an Exploration Result.
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.*	**2022 Drill Programme (ChemX Materials)** • The Jamieson Tank mineralisation is believed to be confined within 040 degree striking corridors where previous drilling identified both flat lying and high angle, discontinuous, pods or lenses of mineralization, dipping to the south east. • Accordingly, inclined holes were drilled between an azimuth of 270° to 310° degrees and 60 degrees depressed with a few vertical holes drilled near inclined holes to test the possible shape and orientation of the lenses or pods. • The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias. **Historical Work 2005 to 2013 (Monax Mining)** • A majority of the drill holes were inclined at an angle of 60 degrees to the west, to give the best chance of identifying the stratigraphic context and true thicknesses of any manganese mineralisation. (2009 ATR) The CP considers that the orientation of the data appropriate for reporting an Exploration Result.
Sample security	• *The measures taken to ensure sample security.*	**2022 Drill Programme (ChemX Materials)** • Samples were collected from the field on the day or following day from drilling and transported to the exploration laydown area located on a private property within EL6634. The exploration laydown area is within 200m of the homestead/outbuildings and is secure.

Criteria	JORC Code explanation	Commentary
		• Individual sample bags are folded and on a slight slope with open end folded under the sample and pointed down-slope to mitigate to ingress of moisture or foreign matter. **Historical Work 2005 to 2013 (Monax Mining)** • All residual sample material was stored securely. The CP considers that the sample security does not pose any risk for the reporting of an Exploration Result.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of sampling techniques and data have been carried out by either ChemX or Monax

Jamieson Tank JORC 2012 Table 1 Section 2 – Key Classification Criteria

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 Project comprises licences EL6634 and EL5920, colloquially named Carappee Hill. • EL6634 is located approximately 20km SSW of Kimba (Legal Area 664km2), and EL5920 approximately 60km NW of Cowell (Legal Area 54km2), with the tenements being held 100% by ChemX Materials Ltd. • No Native Title has been registered. • There are two small Conservation Parks within EL6634 (Malgra and Lacroma) and one, Caralue Bluff, excised from EL6634. Several Heritage Vegetation areas have also been identified within the tenements. • Within the tenements are MPL150 (within EL5920) and MPL151 (within both EL6634 & 5020). These are registered to Pirie Resources P/L as part of their Campoona Graphite project. • EML6324, covering 5.6 Ha, is a private mine registered for sand production within EL6634. • The Company is duly bound under a Mineral Rights Agreement with Pirie Resources from conducting exploration for, mining or processing graphite within the Wilclo South excluded area, contained within the Tenements (Wilclo South Excluded Area). Other Minerals, noted as Excluded Minerals, ChemX Materials holds eligibility with respect to exploration, mining and processing.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	The earliest recorded exploration across EL6634 and EL5920 dates from 1967and has been subjected to numerous phases of mineral exploration by various companies. The main targets have been uranium, base metals or gold, aluminium, diamonds, silver and iron ore. The most meaningful manganese focused exploration was completed by Monax Mining between 2005 to 2013.

Work included airborne and ground geophysical surveys, surface soil and rock chip sampling and drilling, targeting predominantly manganese with minor focus on base metals, uranium and iron.

Between 2014 to 2019 Pirie Resources Pty Ltd (Archer Exploration Ltd) comprised exploration for graphite and assessment for other 'green' elements, including manganese, lithium and kaolin.

Since 2022, ChemX has completed a maiden drill programme and preliminary sighter metallurgical test work targeting high purity manganese sulphate monohydrate (HPMSM).

The full drill summary is presented below.

Drill Type	Holes	Metres	Years	Company
AC	394	7,918.5	2010 to 2012, 2022	Monax, Archer, ChemX
Diamond Core	13	1,475.3	1986 to 1987, 1990, 2012 to 2013	SADME, Monax, Archer, Greater Pacific
RAB	234	12,022	1983 to 2012	Helix, Shell, Goldstream, Monax, Archer
RCP	325	26,767	1984 to 2013	Shell, Western Mining, Anglo Gold, Pirie, Monax, Archer
Percussion	72	3786.5	1968 to 1985	Mines Exploration, Kerr McGee, Shell
	1,038	**51,969.3**		

Geology	• *Deposit type, geological setting and style of mineralisation.*	• The tenements falls within the Cleve Domain which is dominated by basinal sediments of the ca 2000-1850 Ma Palaeoproterozoic Hutchison Group unconformably overlying late Archaean (ca 2400 Ma) inliers of para and orthogneiss, The Warrow Quartzite forms the basal unit of the Hutchison Group and unconformably overlies the Miltalie Gneiss in the Plug Range area. • The manganese along with the iron mineralisation are hosted in BIF metasediments of the c. 2000–1850 Ma Palaeoproterozoic Hutchison Group. The mineralisation is stratigraphically bound with elevated levels of barium • The geology of the Waddikee exploration licence has been described in detail in the various Annual Technical Reports by Monax Mining Limited (Monax)
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* - *Downhole 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.*	• Details of the drill holes completed in 2022 which underpin this Exploration Target and Result are included in Appendix 2and 3 of this document.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No grade cuts were applied the reported Exploration Results. • A 6% Mn cut-off grade was applied for the Jamieson Tank Exploration Target. • Metal equivalents are not being reported.
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 (e.g. "downhole length, true width not known").*	• The true width of the reported down hole intercepts lengths for the reported Hodgins Exploration Result are not known. • The results interpreted for the Exploration Target on Jamieson Tank suggests drilling has intersected the mineralisation at a relatively high angle.
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 drillhole collar locations and appropriate sectional views.*	• A significant discovery is not being reported. • Drill hole location plans are included as Figure 1, Figure 2 and Figure 5 of this document.
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.*	• Significant intercepts are presented in Appendix 4 and previously in ASX release 22 June 2022.
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*	• ChemX completed preliminary sighter metallurgical testwork on two composite RCP samples of heads grades 12.2 % Mn and 25.5% Mn achieving a 99.7% high purity manganese sulphate monohydrate (HPMSM). • ChemX has not completed any other substantive exploration.

	characteristics; potential deleterious or contaminating substances.	• Historical exploration data was completed originally by Monax Mining, primarily and between 2008 to 2012.
Further work	• *The nature and scale of planned further work (e.g. 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.*	• Further infill drilling targeting the lateral and depth extensions of the 2022 manganese results are warranted to advance the geological understanding of the Jamieson Tank prospect. • Ongoing metallurgical work is in progress to examine to potential of the Jamieson Tank prospect to produce a High Purity Manganese Sulphate Monohydrate (HPMSM) product. • The project remains prospective for REE and high purity alumina (HPA). Focused exploration is warranted to examine to tenements full potential to host critical materials required for electrification and decarbonisation.

Appendix 2: Drill Hole Collar Summary (Jamieson Tank Exploration Target)

Drill Hole	East	North	Type	Depth	RL	Dip	Azimuth	Tenement	Date Completed
BH_113	624043	6298519	AC	28	282	-60	290	EL6634	1/03/2022
BH_113A	624046	6298512	AC	31	282	-60	290	EL6634	1/03/2022
BH_115A	623963	6298414	AC	25	279	-60	280	EL6634	1/03/2022
BH_116	623855	6298058	AC	48	271	-60	310	EL6634	1/03/2022
BH_117	623875	6298058	AC	16	280	-60	290	EL6634	1/03/2022
BH_119	623940	6298010	AC	40	285	-60	290	EL6634	1/03/2022
BH_120	623736	6297938	AC	41	276	-60	280	EL6634	1/03/2022
BH_121	623755	6297925	AC	42	273	-60	290	EL6634	1/03/2022
BH_123	623840	6297870	AC	40	277	-60	290	EL6634	1/03/2022
BH_124	623885	6297840	AC	37	275	-60	290	EL6634	1/03/2022
BH_126	623700	6297630	AC	40	279	-60	290	EL6634	1/03/2022
BH_127	623740	6297610	AC	40	276	-60	280	EL6634	1/03/2022
BH_127A	623724	6297590	AC	49	270	-60	290	EL6634	1/03/2022
BH_127B	623698	6297551	AC	43	272	-60	290	EL6634	1/03/2022
BH_128	623780	6297590	AC	40	276	-60	290	EL6634	1/03/2022
BH_132	623724	6297590	AC	36	276	-60	290	EL6634	1/03/2022
BH_133	623720	6297320	AC	34	284	-60	290	EL6634	1/03/2022
BH_135	623720	6297320	AC	31	280	-60	290	EL6634	1/03/2022
BH_135B	623639	6297181	AC	34	298	-60	290	EL6634	1/03/2022
BH_136	623530	6297200	AC	16	284	-60	290	EL6634	1/03/2022
CHRC002	622809	6295938	RC	37	0	-60	270	EL5920	20/06/2008
CHRC003	622819	6295932	RC	137	0	-60	285	EL5920	21/06/2008
CHRC004	622991	6295847	RC	120	0	-60	282	EL5920	22/06/2008
CHRC005	622962	6295864	RC	115	0	-60	285	EL5920	23/06/2008

CHRC006	623024	6295835	RC	139	0	-60	279	EL5920	23/06/2008
CHRC013	623151	6295785	RC	127	0	-60	270	EL5920	30/06/2008
CHRC014	623077	6295660	RC	139	0	-60	270	EL5920	30/06/2008
CHRC015	623112	6295568	RC	128	0	-60	270	EL5920	1/07/2008
JP_148	622440	6296640	AC	46	260	-60	290	EL6634	1/03/2022
JP_149	622400	6296670	AC	37	251	-60	290	EL6634	1/03/2022
JP_150	622381	6296690	AC	28	256	-60	290	EL6634	1/03/2022
JP_150A	622381	6296690	AC	18	258	-60	290	EL6634	1/03/2022
JP_152	623060	6297920	AC	40	273	-60	310	EL6634	1/03/2022
JP_155	622531	6296762	AC	36	267	-60	290	EL6634	1/03/2022
JP_156	622666	6296721	AC	39	265	-60	290	EL6634	1/03/2022
JP_158	622650	6296740	AC	40	274	-60	290	EL6634	1/03/2022
JP_158A	622695	6296825	AC	30	268	-60	290	EL6634	1/03/2022
JP_159	622480	6296695	AC	36	259	-60	290	EL6634	1/03/2022
JP_164	622245	6296500	AC	22	250	-60	290	EL6634	1/03/2022
JTRC001	622358	6296608	RC	43	248	-60	290	EL6634	21/05/2008
JTRC002	622379	6296594	RC	67	250	-60	290	EL6634	24/05/2008
JTRC003	622400	6296586	RC	85	250	-60	290	EL6634	24/05/2008
JTRC004	622411	6296778	RC	49	251	-60	290	EL6634	30/05/2008
JTRC005	622433	6296768	RC	67	250	-60	290	EL6634	29/05/2008
JTRC006	622454	6296759	RC	85	251	-60	290	EL6634	29/05/2008
JTRC007	622473	6296750	RC	109	252	-60	290	EL6634	27/05/2008
JTRC008	622494	6296740	RC	97	255	-60	290	EL6634	30/05/2008
JTRC009	622518	6296730	RC	55	251	-60	290	EL6634	31/05/2008
JTRC010	622533	6296722	RC	25	253	-60	290	EL6634	31/05/2008

JTRC011	623151	6298056	RC	49	259	-60	290	EL6634	31/05/2008
JTRC012	623172	6298047	RC	67	259	-60	290	EL6634	1/06/2008
JTRC013	623195	6298040	RC	79	256	-60	290	EL6634	1/06/2008
JTRC014	623216	6298029	RC	92	263	-60	290	EL6634	2/06/2008
JTRC015	623236	6298022	RC	91	259	-60	290	EL6634	2/06/2008
JTRC016	623723	6298047	RC	49	272	-60	290	EL6634	3/06/2008
JTRC017	623742	6298035	RC	49	272	-60	290	EL6634	3/06/2008
JTRC018	623762	6298025	RC	49	271	-60	290	EL6634	3/06/2008
JTRC019	623782	6298013	RC	67	270	-60	290	EL6634	3/06/2008
JTRC020	623802	6298002	RC	61	269	-60	290	EL6634	3/06/2008
JTRC021	623815	6297995	RC	37	273	-60	290	EL6634	3/06/2008
JTRC022	623836	6297982	RC	67	273	-60	290	EL6634	4/06/2008
JTRC023	623902	6298115	RC	49	272	-60	290	EL6634	4/06/2008
JTRC024	623923	6298105	RC	67	276	-60	290	EL6634	4/06/2008
JTRC025	623944	6298095	RC	43	275	-60	290	EL6634	5/06/2008
JTRC026	623965	6298085	RC	37	277	-60	290	EL6634	5/06/2008
JTRC027	623987	6298075	RC	49	278	-60	290	EL6634	5/06/2008
JTRC028	624004	6298066	RC	85	279	-60	290	EL6634	5/06/2008
JTRC029	624035	6298499	RC	79	268	-60	290	EL6634	5/06/2008
JTRC030	624043	6298495	RC	49	271	-60	290	EL6634	6/06/2008
JTRC031	624051	6298490	RC	55	271	-60	290	EL6634	6/06/2008
JTRC032	624054	6298490	RC	55	273	-90	0	EL6634	6/06/2008
JTRC033	624038	6298470	RC	49	273	-60	290	EL6634	8/06/2008
JTRC034	624046	6298466	RC	49	273	-60	290	EL6634	9/06/2008
JTRC035	624048	6298492	RC	30	273	-60	20	EL6634	9/06/2008

JTRC036	623609	6297159	RC	55	284	-60	110	EL6634	10/06/2008
JTRC037	623588	6297169	RC	55	285	-60	110	EL6634	10/06/2008
JTRC038	623565	6297181	RC	61	283	-60	110	EL6634	11/06/2008
JTRC039	623546	6297192	RC	25	284	-60	110	EL6634	11/06/2008
JTRC040	623124	6298001	RC	49	259	-60	290	EL6634	11/06/2008
JTRC041	623144	6297991	RC	49	261	-60	290	EL6634	11/06/2008
JTRC042	623163	6297980	RC	55	263	-60	290	EL6634	12/06/2008
JTRC043	623183	6297970	RC	85	264	-60	290	EL6634	12/06/2008
JTRC044	623204	6297960	RC	85	265	-60	290	EL6634	12/06/2008
JTRC045	623901	6298901	RC	44	244	-60	270	EL6634	6/05/2010
JTRC046	623925	6298903	RC	48	244	-60	270	EL6634	7/05/2010
JTRC047	623952	6298903	AC	39	244	-60	270	EL6634	7/05/2010
JTRC048	623962	6298904	AC	31	244	-60	270	EL6634	7/05/2010
JTRC049	623952	6298701	RC	52	251	-60	270	EL6634	7/05/2010
JTRC050	623973	6298704	RAB	49	257	-60	270	EL6634	8/05/2010
JTRC051	623999	6298702	RAB	64	265	-60	270	EL6634	8/05/2010
JTRC052	624029	6298443	RAB	58	281	-60	270	EL6634	8/05/2010
JTRC053	624055	6298442	RAB	40	280	-60	270	EL6634	8/05/2010
JTRC054	624056	6298443	RAB	46	280	-90	0	EL6634	8/05/2010
JTRC055	623960	6298431	RAB	49	273	-60	270	EL6634	9/05/2010
JTRC056	623933	6298431	RAB	46	272	-60	270	EL6634	9/05/2010
JTRC057	623909	6298433	RAB	46	271	-60	270	EL6634	9/05/2010
JTRC058	623985	6298431	RAB	79	273	-60	270	EL6634	9/05/2010
JTRC059	623849	6298101	RAB	69	269	-60	270	EL6634	9/05/2010
JTRC060	623873	6298100	RAB	70	270	-60	270	EL6634	11/05/2010

JTRC061	623898	6298100	RAB	64	271	-60	270	EL6634	11/05/2010
JTRC062	623723	6297901	RAB	49	275	-60	270	EL6634	11/05/2010
JTRC063	623749	6297902	RAB	45	271	-60	270	EL6634	11/05/2010
JTRC064	623773	6297899	RAB	58	267	-60	270	EL6634	11/05/2010
JTRC065	623798	6297898	RAB	58	265	-60	270	EL6634	11/05/2010
JTRC066	623874	6297900	RAB	58	271	-60	270	EL6634	11/05/2010
JTRC067	623900	6297897	RAB	55	274	-60	270	EL6634	12/05/2010
JTRC068	623924	6297899	RAB	52	279	-60	270	EL6634	12/05/2010
JTRC069	623949	6297899	RAB	55	280	-60	270	EL6634	12/05/2010
JTRC070	623976	6297901	RAB	52	283	-60	270	EL6634	12/05/2010
JTRC071	623816	6297900	RAB	58	274	-60	270	EL6634	12/05/2010
JTRC072	623672	6297700	RAB	50	262	-60	270	EL6634	12/05/2010
JTRC073	623698	6297701	RAB	53	263	-60	270	EL6634	13/05/2010
JTRC074	623723	6297699	RAB	56	269	-60	270	EL6634	13/05/2010
JTRC075	623750	6297700	RAB	50	271	-60	270	EL6634	13/05/2010
JTRC076	623802	6297702	RAB	49	272	-60	270	EL6634	13/05/2010
JTRC077	623822	6297701	RAB	53	273	-60	270	EL6634	13/05/2010
JTRC078	623849	6297704	RAB	58	267	-60	270	EL6634	14/05/2010
JTRC079	623872	6297698	RAB	46	270	-60	270	EL6634	14/05/2010
JTRC080	623388	6297503	RAB	61	268	-60	270	EL6634	14/05/2010
JTRC081	623416	6297502	RAB	58	264	-60	270	EL6634	14/05/2010
JTRC082	623599	6297501	RAB	52	268	-60	270	EL6634	14/05/2010
JTRC083	623625	6297500	RAB	70	250	-60	270	EL6634	15/05/2010
JTRC084	623648	6297501	RAB	61	253	-60	270	EL6634	15/05/2010
JTRC085	623675	6297504	RAB	72	271	-60	270	EL6634	15/05/2010

JTRC086	623726	6297502	RC	47	272	-60	270	EL6634	15/05/2010
JTRC087	623750	6297500	RAB	73	269	-60	270	EL6634	17/05/2010
JTRC088	623775	6297500	RAB	73	277	-60	270	EL6634	17/05/2010
JTRC089	623798	6297505	RAB	73	280	-60	270	EL6634	17/05/2010
JTRC090	623351	6297301	RAB	67	269	-60	270	EL6634	17/05/2010
JTRC091	623374	6297299	RAB	61	276	-60	270	EL6634	18/05/2010
JTRC092	623493	6297301	RAB	55	278	-60	270	EL6634	18/05/2010
JTRC093	623524	6297301	RAB	58	287	-60	270	EL6634	18/05/2010
JTRC094	623552	6297303	RAB	70	285	-60	270	EL6634	18/05/2010
JTRC095	623572	6297304	RAB	67	274	-60	270	EL6634	18/05/2010
JTRC096	623601	6297303	RAB	58	277	-60	270	EL6634	19/05/2010
JTRC097	623624	6297302	RAB	47	274	-60	270	EL6634	19/05/2010
JTRC098	623649	6297301	RAB	43	274	-60	270	EL6634	19/05/2010
JTRC099	623675	6297301	RAB	49	271	-60	270	EL6634	19/05/2010
JTRC100	623700	6297301	RAB	64	272	-60	270	EL6634	19/05/2010
JTRC101	623724	6297300	RAB	61	273	-60	270	EL6634	20/05/2010
JTRC102	623299	6297098	RAB	55	264	-60	270	EL6634	20/05/2010
JTRC103	623326	6297102	RAB	52	266	-60	270	EL6634	20/05/2010
JTRC104	623448	6297101	RAB	61	279	-60	270	EL6634	20/05/2010
JTRC105	623473	6297101	RAB	23	280	-60	270	EL6634	20/05/2010
JTRC106	623496	6297100	RAB	43	280	-60	270	EL6634	20/05/2010
JTRC107	623524	6297101	RAB	49	279	-60	270	EL6634	21/05/2010
JTRC108	623548	6297103	RAB	86	279	-60	270	EL6634	21/05/2010
JTRC109	623577	6297101	RAB	40	274	-60	270	EL6634	27/05/2010
JTRC110	623601	6297103	RAB	40	274	-60	270	EL6634	27/05/2010

JTRC111	623624	6297100	RAB	52	273	-60	270	EL6634	27/05/2010
JTRC112	623654	6297101	RAB	25	267	-60	270	EL6634	29/05/2010
JTRC113	623398	6296900	RAB	61	265	-60	270	EL6634	29/05/2010
JTRC114	623428	6296902	RAB	70	265	-60	270	EL6634	29/05/2010
JTRC115	623451	6296901	RAB	58	266	-60	270	EL6634	29/05/2010
JTRC116	623469	6296900	RAB	58	266	-60	270	EL6634	29/05/2010
JTRC117	623498	6296900	RAB	61	267	-60	270	EL6634	30/05/2010
JTRC118	623525	6296902	RAB	58	267	-60	270	EL6634	30/05/2010
JTRC119	623552	6296903	RAB	61	266	-60	270	EL6634	30/05/2010
JTRC120	623574	6296902	RAB	70	265	-60	270	EL6634	30/05/2010
JTRC121	623600	6296902	RAB	61	263	-60	270	EL6634	2/06/2010
JTRC122	623625	6296903	RAB	50	263	-60	270	EL6634	2/06/2010
JTRC123	623651	6296904	RAB	50	263	-60	270	EL6634	2/06/2010
JTRC124	623337	6296632	RAB	58	244	-60	270	EL6634	3/06/2010
JTRC125	623367	6296637	RAB	58	243	-60	270	EL6634	3/06/2010
JTRC126	623429	6296640	RAB	48	243	-60	270	EL6634	4/06/2010
JTRC127	623449	6296639	RAB	28	243	-60	270	EL6634	4/06/2010
JTRC128	623227	6296299	RAB	52	242	-60	270	EL5920	4/06/2010
JTRC129	623251	6296300	AC	42	243	-60	270	EL5920	5/06/2010
JTRC130	623275	6296300	AC	48	244	-60	270	EL5920	5/06/2010
JTRC131	623300	6296302	AC	30.5	245	-60	270	EL5920	5/06/2010
JTRC132	623326	6296304	AC	35	246	-60	270	EL5920	5/06/2010
JTRC133	623312	6296301	AC	36	245	-60	270	EL5920	5/06/2010
JTRC134	623150	6296102	AC	51	249	-60	270	EL5920	6/06/2010
JTRC135	623174	6296102	AC	37	249	-60	270	EL5920	6/06/2010

JTRC136	623199	6296101	AC	46	249	-60	270	EL5920	6/06/2010
JTRC137	623224	6296101	AC	53	250	-60	270	EL5920	7/06/2010
JTRC138	623249	6296100	AC	46	251	-60	270	EL5920	7/06/2010
JTRC139	623101	6295900	AC	51	247	-60	270	EL5920	7/06/2010
JTRC140	623124	6295899	AC	51	248	-60	270	EL5920	7/06/2010
JTRC141	623148	6295901	AC	45	248	-60	270	EL5920	8/06/2010
JTRC142	623176	6295900	AC	46	249	-60	270	EL5920	8/06/2010
JTRC143	623045	6295900	AC	15	247	-60	270	EL5920	8/06/2010
JTRC144	622951	6295500	AC	21	254	-60	270	EL5920	8/06/2010
JTRC145	622973	6295500	AC	33	255	-60	270	EL5920	8/06/2010
JTRC146	621423	6293050	AC	49	240	-60	270	EL6634	4/03/2011
JTRC147	621450	6293051	RAB	59	232	-60	270	EL6634	4/03/2011
JTRC148	621473	6293048	AC	54	236	-60	270	EL6634	5/03/2011
JTRC149	621499	6293049	RAB	40	241	-60	270	EL6634	5/03/2011
JTRC150	621527	6293048	RAB	46	239	-60	270	EL6634	5/03/2011
JTRC151	621550	6293047	RAB	49	240	-60	270	EL6634	5/03/2011
JTRC152	621575	6293049	RAB	43	240	-60	270	EL6634	6/03/2011
JTRC153	621599	6293050	RAB	16	239	-60	270	EL6634	6/03/2011
JTRC153A	621600	6293050	RAB	60	239	-60	270	EL6634	9/03/2011
JTRC154	621624	6293048	RAB	60	242	-60	270	EL6634	9/03/2011
JTRC155	621651	6293050	RAB	60	240	-90	0	EL6634	9/03/2011
JTRC156	621675	6293048	RAB	60	240	-60	270	EL6634	9/03/2011
JTRC157	621700	6293050	RAB	61	237	-60	270	EL6634	9/03/2011
JTRC158	621722	6293049	RAB	60	234	-60	270	EL6634	10/03/2011
JTRC159	621750	6293049	RAB	60	240	-60	270	EL6634	10/03/2011

JTRC160	621777	6293050	AC	60	239	-60	270	EL6634	10/03/2011
JTRC161	622198	6294075	AC	37	242	-60	270	EL6634	10/03/2011
JTRC162	622225	6294079	RC	54	237	-60	270	EL6634	11/03/2011
JTRC163	622254	6294075	RAB	60	241	-60	270	EL6634	11/03/2011
JTRC164	622275	6294077	RAB	60	239	-60	270	EL6634	11/03/2011
JTRC165	622296	6294076	RAB	19	243	-60	270	EL6634	11/03/2011
JTRC165A	622296	6294076	RAB	52	243	-60	270	EL6634	11/03/2011
JTRC166	622324	6294076	RAB	53	243	-60	270	EL6634	14/03/2011
JTRC167	622350	6294075	RAB	60	239	-60	270	EL6634	18/03/2011
JTRC168	622375	6294079	RAB	58	246	-60	270	EL6634	18/03/2011
JTRC169	622351	6294799	RAB	54	237	-60	270	EL6634	20/03/2011
JTRC170	622372	6294794	RAB	60	245	-60	270	EL6634	20/03/2011
JTRC171	622402	6294799	RAB	52	243	-60	270	EL6634	20/03/2011
JTRC172	622427	6294798	RAB	50	240	-60	270	EL6634	20/03/2011
JTRC173	622450	6294802	RAB	60	239	-60	270	EL6634	21/03/2011
JTRC174	622475	6294802	RAB	66	243	-60	270	EL5920	21/03/2011
JTRC175	622494	6294803	RAB	61	252	-60	270	EL5920	21/03/2011
JTRC176	622526	6294803	RAB	60	252	-60	270	EL5920	21/03/2011
JTRC177	622550	6294798	RAB	42	249	-60	270	EL5920	21/03/2011
JTRC178	622575	6294800	RAB	49	244	-60	270	EL5920	22/03/2011
JTRC179	622600	6294797	RAB	66	245	-60	270	EL5920	22/03/2011
JTRC180	622628	6294802	RAB	60	249	-60	270	EL5920	22/03/2011
JTRC181	622654	6294803	RAB	60	255	-60	270	EL5920	22/03/2011
JTRC182	622849	6295192	RAB	60	243	-60	270	EL5920	20/03/2011
JTRC183	622827	6295200	RAB	60	250	-60	270	EL5920	19/03/2011

JTRC184	622799	6295198	RAB	60	243	-60	270	EL5920	19/03/2011
JTRC185	622948	6295396	RAB	60	245	-60	270	EL5920	19/03/2011
JTRC186	622975	6295397	RAB	60	245	-60	270	EL5920	19/03/2011
JTRC187	623001	6295396	RAB	60	246	-60	270	EL5920	19/03/2011
JTRC188	622178	6294708	RC	31	239	-60	270	EL6634	22/03/2012
JTRC189	622203	6294703	RC	39	234	-60	270	EL6634	22/03/2012
JTRC190	622222	6294703	RC	49	233	-60	270	EL6634	23/03/2012
JTRC191	622246	6294700	RC	49	236	-60	270	EL6634	23/03/2012
JTRC198	624004	6299048	RC	51	258	-60	270	EL6634	30/03/2012
JTRC199	624043	6299048	RC	46	259	-60	270	EL6634	31/03/2012
JTRC200	624000	6297707	RC	51	271	-60	270	EL6634	31/03/2012
JTRC201	621778	6293802	AC	45	231	-60	270	EL6634	21/03/2012
JTRC202	621795	6293804	AC	42	230	-60	270	EL6634	21/03/2012
JTRC203	621822	6293805	AC	51	233	-60	270	EL6634	21/03/2012
JTRC204	621844	6293804	AC	51	231	-60	270	EL6634	21/03/2012
JTRC205	621868	6293806	RC	49	234	-60	270	EL6634	22/03/2012
JTRC206	621900	6293803	AC	60	237	-60	270	EL6634	22/03/2012
SJPC 40	622400	6296713	RCP	65	NA	-60	270	EL6634	8/02/1993
SJPC 41	623045	6295663	RCP	46	NA	-60	274	EL5920	9/02/1993
SJPC 42	623060	6295608	RCP	53	NA	-60	269	EL5920	9/02/1993
SJPC 45	623010	6295573	RCP	55	NA	-60	266	EL5920	5/04/1993
SJPC 46	622990	6295573	RCP	60	NA	-60	266	EL5920	5/04/1993
SJPC 47	622960	6295573	RCP	55	NA	-60	264	EL5920	6/04/1993
SJPC 48	623065	6295573	RCP	90	NA	-60	266	EL5920	6/04/1993
SJPC 49	623090	6295573	RCP	50	NA	-60	266	EL5920	8/04/1993

SJPC 50	623010	6295648	RCP	50	NA	-60	266	EL5920	7/04/1993

Coordinates in MGA 1994 53S

Appendix 3: Drill Hole Collar Summary (Hodgins Exploration Result)

Drill Hole	East	North	Type	Depth (m)	RL	Dip	Azimuth	Tenement	Date Completed
HRC001	617702	6323805	RAB	60	207	-60	270	EL6634	26-Mar-11
HRC002	617722	6323802	RAB	60	208	-60	270	EL6634	30-Mar-11
HRC003	617671	6323800	RAB	55	206	-60	270	EL6634	30-Mar-11
HRC004	617649	6323800	RAB	45	204	-60	270	EL6634	31-Mar-11
HRC005	617659	6323801	RAB	56	204	-60	90	EL6634	31-Mar-11
HRC006	617762	6323800	RAB	25	209	-60	270	EL6634	31-Mar-11
HRC007	617645	6323750	RC	52	198	-60	270	EL6634	26-Mar-12
HRC008	617668	6323750	RC	51	210	-60	270	EL6634	27-Mar-12
HRC009	617707	6323750	RC	51	201	-60	270	EL6634	27-Mar-12
HRC010	617724	6323750	RC	51	217	-60	270	EL6634	27-Mar-12
HRC011	617552	6323023	AC	46	192	-60	270	EL6634	27-Mar-12
HRC012	617599	6323027	RC	60	199	-60	270	EL6634	28-Mar-12
HRC013	617651	6323027	AC	27	203	-60	270	EL6634	28-Mar-12
HRC014	617804	6324252	RAB	42	198	-60	270	EL6634	02-Apr-12
HRC015	617828	6324251	RAB	50	197	-60	270	EL6634	02-Apr-12
HRC016	617850	6324247	RAB	30	194	-60	270	EL6634	02-Apr-12
HRC017	617875	6324250	AC	30	200	-60	270	EL6634	02-Apr-12

Coordinates in MGA 1994 53S

Appendix 4: Representative manganese drill intercepts Jamieson Tank

Drill hole	Depth from (m)	Depth to (m)	Mn %	Fe %	S %
JTRC083	6	7	0.5	19.3	0.23
JTRC083	7	8	1.9	14.0	0.16
JTRC083	9	10	14.8	16.4	0.13
JTRC083	10	11	12.0	10.2	0.09
JTRC083	11	12	16.1	13.3	0.14
JTRC083	12	13	6.6	17.0	0.09
JTRC083	13	14	5.0	11.3	0.07
JTRC083	14	15	4.9	12.0	0.15
JTRC083	15	16	15.7	10.2	0.40
JTRC083	16	17	24.0	3.4	0.11
JTRC083	17	18	0.8	5.4	0.09
JTRC083	18	19	2.0	7.3	0.08
JTRC083	19	20	0.8	5.3	0.06
JTRC083	20	21	2.4	4.9	0.04
JTRC083	21	22	1.3	8.4	0.07
JTRC083	58	59	2.0	5.3	0.02
JTRC083	59	60	1.7	5.6	0.02
JTRC083	60	61	1.9	7.1	0.02
JTRC083	61	62	5.0	11.4	0.03
JTRC083	62	63	1.7	19.7	0.02
JTRC083	63	64	1.6	15.7	0.02
JTRC083	64	65	2.1	9.4	0.01
JTRC083	65	66	2.2	11.3	0.01
JTRC083	66	67	1.4	15.3	0.01

JTRC083	67	68	0.7	18.4	0.02
JTRC083	68	69	1.6	13.5	0.02
JTRC084	23	24	8.2	10.4	0.08
JTRC084	24	25	9.0	13.6	0.08
JTRC084	25	26	7.0	23.0	0.07
JTRC084	26	27	6.1	14.0	0.06
JTRC084	27	28	8.3	9.6	0.09
JTRC084	28	29	6.8	18.1	0.08
JTRC084	29	30	7.2	24.6	0.06
JTRC084	30	31	11.1	21.5	0.09
JTRC084	31	32	11.3	19.4	0.10
JTRC084	32	33	5.4	14.3	0.05
JTRC084	38	39	6.9	11.7	0.04
JTRC084	39	40	16.5	10.7	0.05
JTRC084	40	41	12.5	8.0	0.04
JTRC084	41	42	5.3	6.8	0.02
JTRC085	12	13	3.8	23.5	0.24
JTRC085	13	14	3.3	14.8	0.34
JTRC085	14	15	0.8	20.2	0.27
JTRC085	15	16	0.8	21.2	0.17
JTRC085	16	17	3.1	21.5	0.13
JTRC085	17	18	8.1	18.2	0.10
JTRC085	18	19	7.1	23.0	0.13
JTRC085	19	20	3.4	23.3	0.13
JTRC085	20	21	5.8	25.4	0.09

JTRC085	21	22	13.4	24.4	0.09
JTRC085	22	23	3.7	31.5	0.05
JTRC085	23	24	5.6	29.9	0.06
JTRC085	24	25	5.1	28.7	0.06
JTRC085	25	26	7.1	26.7	0.12
JTRC085	26	27	7.3	24.9	0.12
JTRC085	27	28	3.5	19.0	0.09
JTRC085	28	29	9.3	24.1	0.13
JTRC085	29	30	6.8	21.8	0.11
JTRC085	30	31	3.9	22.5	0.10
JTRC085	59	60	1.9	13.1	0.03
JTRC085	60	61	4.8	11.7	0.03
JTRC085	61	62	6.8	10.7	0.03
JTRC085	62	63	11.0	8.9	0.03
JTRC085	63	64	4.3	6.5	0.02
JTRC085	64	65	1.3	5.6	0.01
JTRC085	65	66	0.8	5.3	0.01
JTRC085	66	67	0.9	5.1	0.01
JTRC085	67	68	0.9	5.5	0.01
JTRC085	68	69	0.7	6.3	0.01
JTRC085	69	70	1.0	6.8	0.01
JTRC085	70	71	0.6	6.5	0.01
JTRC085	71	72	0.7	6.7	0.01
JTRC086	12	13	11.9	10.0	0.04
JTRC086	13	14	16.2	8.8	0.04

JTRC086	14	15	18.6	11.0	0.05
JTRC086	19	21	7.8	15.9	0.10
JTRC086	21	23	6.3	9.2	0.02
JTRC086	23	25	1.8	13.9	0.02
JTRC086	25	27	1.5	14.5	0.01
JTRC087	15	16	0.1	5.2	0.08
JTRC087	16	17	2.7	5.1	0.17
JTRC087	17	18	6.5	10.1	0.11
JTRC087	18	19	7.2	13.4	0.11
JTRC087	19	20	12.3	12.4	0.06
JTRC087	20	21	5.4	19.0	0.06
JTRC087	21	23	4.6	14.4	0.03
JTRC087	23	25	4.8	13.7	0.03
JTRC087	25	27	4.3	12.4	0.03
JTRC087	27	29	6.9	12.3	0.03
JTRC087	29	31	5.4	13.8	0.03
JTRC087	31	32	11.2	23.6	0.06
JTRC087	32	33	7.0	11.7	0.05
JTRC087	58	59	4.8	8.7	0.01
JTRC087	59	60	7.0	9.5	0.02
JTRC087	60	61	3.7	10.0	0.01
JTRC088	4	5	0.5	13.9	0.16
JTRC088	5	6	5.3	13.1	0.34
JTRC088	6	7	0.8	14.4	0.46
JTRC088	7	8	2.5	10.0	0.49

JTRC088	8	9	8.0	6.7	0.35
JTRC088	9	10	1.4	4.3	0.10
JTRC088	21	22	4.3	6.7	2.17
JTRC088	22	23	12.0	6.2	0.69
JTRC088	23	24	4.8	4.9	0.10
JTRC088	24	25	2.2	5.6	0.06
JTRC088	37	38	6.8	9.0	0.03
JTRC088	38	39	18.9	12.5	0.04
JTRC088	39	40	13.2	17.9	0.06
JTRC088	49	50	6.1	9.5	0.07
JTRC088	50	51	11.1	12.7	0.05
JTRC088	51	52	12.2	9.5	0.06
JTRC088	52	53	4.2	7.7	0.04
JTRC083	8	9	0.7	20.9	0.27
JTRC089	16	18	9.0	21.1	0.10
JTRC089	18	20	8.4	15.1	0.05
JTRC089	20	22	10.6	18.2	0.06
JTRC089	22	23	16.4	11.5	0.04
JTRC089	23	24	23.5	9.0	0.04
JTRC089	24	25	14.5	10.2	0.04
JTRC089	25	26	5.8	9.2	0.43
JTRC089	26	27	5.4	5.8	0.05
JTRC102	30	32	7.5	14.8	0.05
JTRC102	32	34	8.2	11.1	0.03
JTRC102	34	36	7.8	7.9	0.02

JTRC103	43	44	4.3	8.3	0.05
JTRC103	44	46	3.1	8.0	0.03
JTRC103	46	48	3.5	10.7	0.04
JTRC104	1	2	1.1	17.8	0.05
JTRC104	2	3	2.2	19.8	0.03
JTRC104	3	4	1.4	19.1	0.05
JTRC104	4	5	0.7	21.2	0.08
JTRC104	5	6	3.8	17.4	0.06
JTRC104	6	7	1.7	25.4	0.03
JTRC104	7	8	0.8	30.7	0.06
JTRC104	8	9	1.9	25.2	0.06
JTRC104	9	10	2.8	27.5	0.13
JTRC104	10	12	0.8	21.7	0.10
JTRC104	12	14	1.2	22.4	0.06
JTRC104	14	16	6.2	20.9	0.08
JTRC104	16	18	4.9	7.2	0.07
JTRC104	18	20	1.6	6.8	0.14
JTRC104	20	22	1.7	7.2	0.06
JTRC104	22	24	2.7	7.7	0.05
JTRC104	24	25	3.5	9.0	0.07
JTRC104	25	26	4.9	10.3	0.09
JTRC104	26	27	4.5	7.8	0.07
JTRC104	27	28	4.7	8.4	0.07
JTRC104	28	32	4.5	8.3	0.05
JTRC104	32	36	4.1	8.2	0.04

JTRC104	36	40	4.7	8.2	0.05
JTRC104	40	44	3.9	7.7	0.05
JTRC104	44	48	3.5	7.5	0.04
JTRC104	48	52	2.8	7.3	0.05
JTRC105	13	15	9.1	17.1	0.10
JTRC105	15	17	4.1	23.3	0.08
JTRC105	17	19	1.3	29.3	0.06
JTRC105	19	21	3.3	32.4	0.12
JTRC105	21	23	7.0	32.8	0.18
JTRC106	25	26	8.2	12.6	0.11
JTRC106	26	27	8.7	12.9	0.12
JTRC106	27	28	5.9	22.6	0.08
JTRC106	28	30	9.0	16.8	0.11
JTRC106	30	32	4.4	25.4	0.06
JTRC106	32	34	4.7	23.1	0.07
JTRC106	34	36	6.5	17.6	0.06
JTRC106	36	38	2.7	14.3	0.02
JTRC106	38	40	5.2	14.4	0.02
JTRC106	40	42	1.9	21.4	0.01
JTRC106	42	43	1.8	18.9	0.01
JTRC107	12	13	12.1	6.9	0.02
JTRC107	31	32	16.8	9.9	0.06
JTRC107	32	33	10.9	9.1	0.03
JTRC108	10	11	11.4	7.6	0.13
JTRC108	11	12	4.8	12.6	0.12

JTRC108	83	84	3.2	12.6	0.01
JTRC108	84	85	2.8	15.3	0.01
JTRC108	85	86	2.6	20.0	0.01
JTRC109	30	31	6.9	11.1	0.07
JTRC109	31	32	16.0	8.8	0.07
JTRC109	32	33	7.0	13.7	0.20
JTRC109	33	34	4.7	12.0	0.25
JTRC109	34	35	7.0	12.8	0.07
JTRC109	35	36	8.1	12.2	0.05
JTRC109	36	37	5.4	10.2	0.06
JTRC109	37	38	3.9	9.2	0.04
JTRC109	38	39	2.6	14.9	0.03
JTRC109	39	40	2.4	19.8	0.03
JTRC110	10	11	2.7	5.7	0.05
JTRC110	11	12	16.8	7.3	0.11
JTRC110	12	13	16.4	9.5	0.10
JTRC110	13	14	3.7	20.6	0.06
JTRC110	14	16	0.6	26.0	0.06
JTRC110	16	18	7.1	17.6	0.07
JTRC110	18	19	21.4	12.7	0.10
JTRC110	19	20	8.6	16.0	0.07
JTRC110	20	21	6.7	16.9	0.07
JTRC110	21	22	3.1	13.7	0.06
JTRC110	22	23	26.0	6.5	0.07
JTRC110	23	24	5.0	6.1	0.04

JTRC110	24	25	3.7	6.5	0.04
JTRC110	25	26	5.6	7.8	0.05
JTRC111	12	13	6.0	7.4	0.52
JTRC111	13	15	0.4	7.9	0.82
JTRC111	15	17	1.1	5.5	0.25
JTRC111	17	18	9.8	5.2	0.12
JTRC111	18	19	4.0	5.5	0.08
JTRC111	19	20	7.0	6.6	0.12
JTRC111	20	22	3.4	8.5	0.11
JTRC111	22	24	5.3	9.5	0.07
JTRC111	24	26	4.6	8.7	0.05
JTRC111	26	28	4.1	8.4	0.04
JTRC111	28	30	0.9	6.2	0.02
JTRC111	30	31	3.2	6.1	0.07
JTRC111	31	32	14.0	17.3	0.10
JTRC111	32	33	10.3	20.2	0.06
JTRC111	33	34	8.7	24.6	0.05
JTRC111	34	35	10.4	19.7	0.06
JTRC111	35	36	8.1	23.8	0.10
JTRC111	36	38	4.8	17.3	0.11
JTRC111	38	40	2.9	18.3	0.09
JTRC111	40	41	8.3	12.9	0.08
JTRC111	41	42	17.5	10.0	0.08
JTRC111	42	43	14.6	7.2	0.07
JTRC112	20	21	8.8	8.6	0.03

JTRC112	21	22	9.6	6.0	0.03
JTRC112	22	23	6.2	5.7	0.02
JTRC112	23	24	6.9	7.2	0.03
JTRC112	24	25	3.1	5.7	0.01