

23 November 2015

## ASX ANNOUNCEMENT

# AIRCORE DRILLING CONFIRMS DEEPER POTENTIAL AT LAKE WELLS

The Directors of Wildhorse Energy Limited (**Wildhorse** or **Company**) are pleased to advise that the Company's recently completed deep aircore drilling program at the Lake Wells Project has produced excellent results, confirming the outstanding potential of the Project to support production of Sulphate of Potash (**SOP**).

### Highlights:

- A total of 27 air core drill holes for 1,697m have been completed over the entire surface of the Lake.
- An average drill depth of 63m (ranging from 15m-126m) was achieved, confirming continuation of the brine pool at depth. The majority of holes ended in high grade brine, and the brine pool is considered open at depth.
- The drilling has identified permeable rock units (aquifers) at the base of the brine saturated sedimentary sequence, potentially representing a productive aquifer for brine extraction by pumping from bores, a very encouraging result.

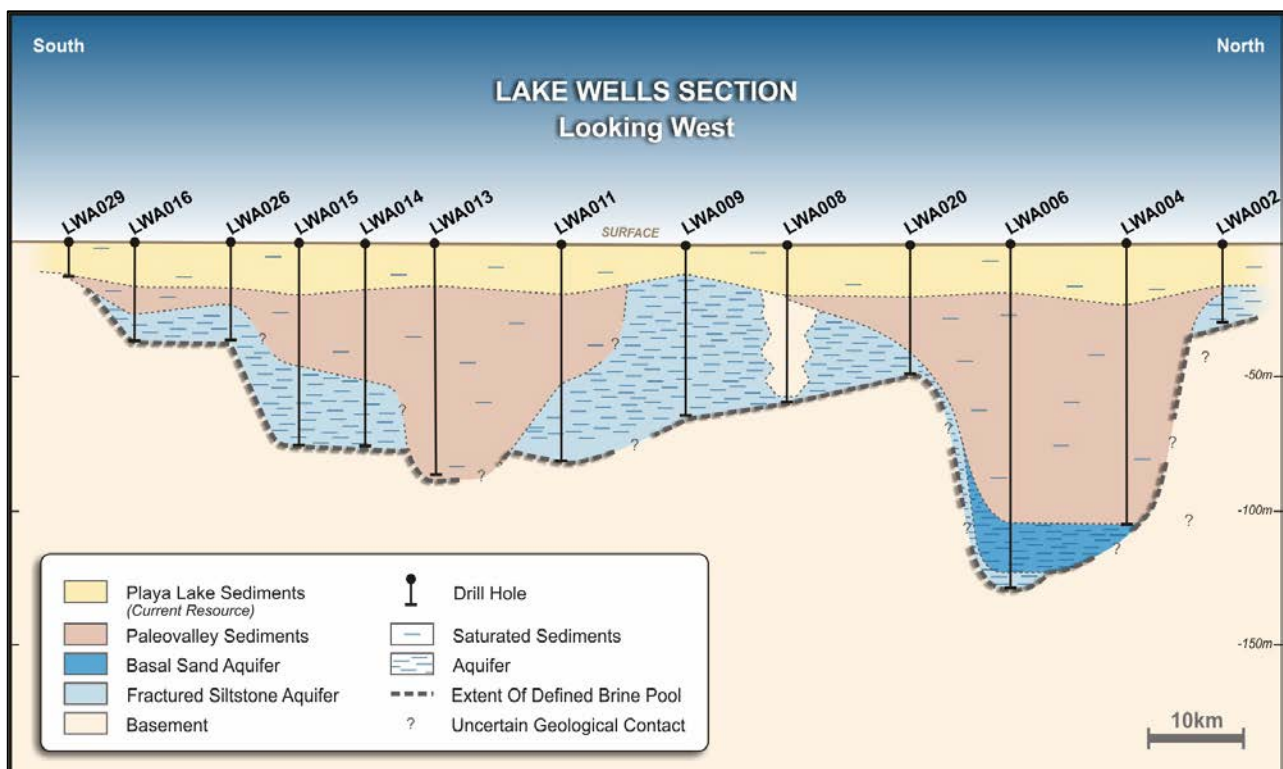


Figure 1: North South Transect

- *The average chemistry of brine samples processed to date exhibits exceptional consistency at depth and is relatively consistent laterally, with average potassium concentration increasing slightly in the expansive northern arm of the lake:*

<b>Average Brine Chemistry</b>	<b>Number of Samples</b>	<b>K (mg/L)</b>	<b>Mg (mg/L)</b>	<b>SO<sub>4</sub> (mg/L)</b>	<b>TDS (mg/L)</b>
North Arm of Lake	99	4,160	6,823	20,073	270,998
'Neck' Area of Lake	17	4,367	6,330	18,465	267,965
South Arm of Lake	108	3,647	6,719	16,980	255,638

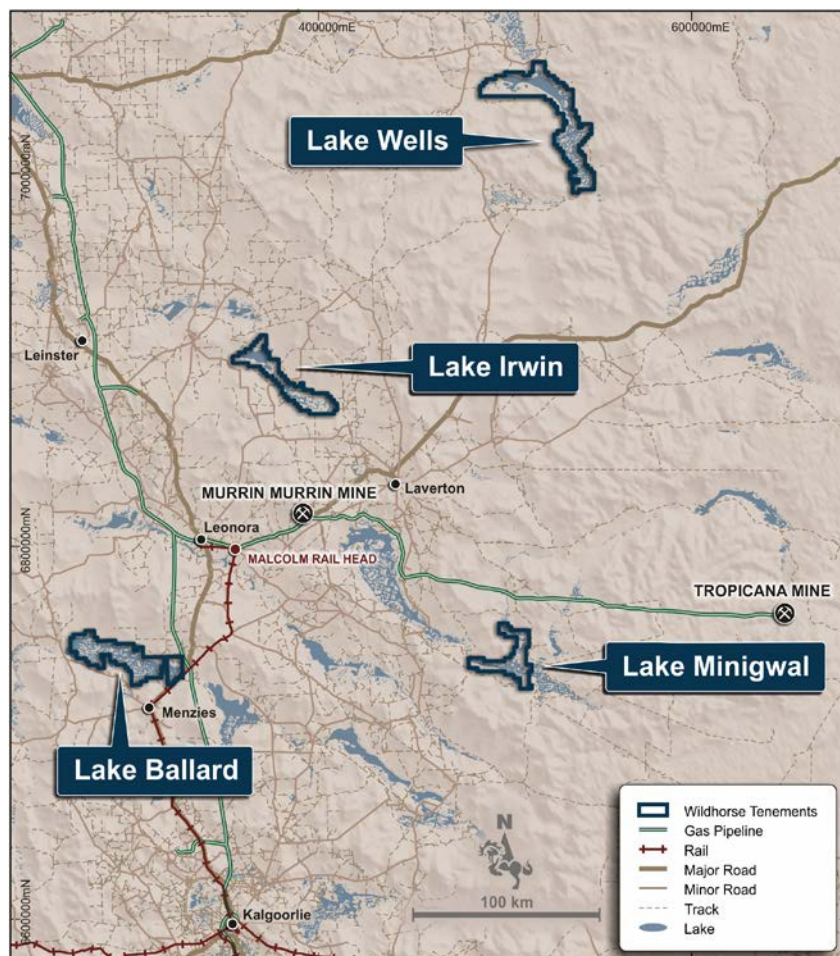
- *The balance of assay results should be available over the next few weeks, allowing completion of a JORC resource estimate to the depth of the lake beneath the current resource estimate.*

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## **Lake Wells Project**

The Lake Wells Project is located in the Northern Goldfields of Western Australia approximately 200km north of Laverton. The Project comprises 1,126 km<sup>2</sup> of granted Exploration Licences, substantially covering the Lake Wells Playa and the area immediately contiguous to the Lake.



**Figure 2: Map of Western Australian project locations**

The Lake has been the subject of a shallow hollow auger coring program completed in September 2015, which formed the basis of an initial shallow resource estimate of 29Mt of SOP (see ASX Announcement dated 11 November 2015).

The objective of the aircore drilling program was to test the lake beyond the capabilities of previous drilling and sampling and, specifically, to:

- Enhance understanding of the Lake Wells sedimentary sequence including determination of the depth to basement.
- Identify permeable aquifers for brine extraction.
- Collect water samples from specific depths in each drill hole through the entire profile of the lake.
- Collect bulk water samples for laboratory evaporation trials.
- Provide data for an estimate of a JORC SOP resource beneath the shallow Resource defined previously by the hollow-core auger drilling.

## **Drill Program**

The drill program utilised a track-mounted aircore drill rig. Company geologists visually logged the sedimentary profile and collected brine samples at the end of each drill rod where possible. Aircore drilling is very effective in that:

- The stratigraphic profile can be determined efficiently;
- Brine samples from specific depth intervals can be collected; and
- Careful aircore drilling using low pressure air allows the qualitative assessment of rock permeability by measuring the brine flow rate at the end of each drill rod.

Not all intervals yielded brine during aircore drilling. “Tight” fine-grained strata do not yield water at a rate that can be sampled using aircore methods. As a result, further laboratory work is underway to recover brine samples from fine-grained strata that did not yield brine during aircore drilling.



**Figure 3: Aircore Drill Rig in Operation**

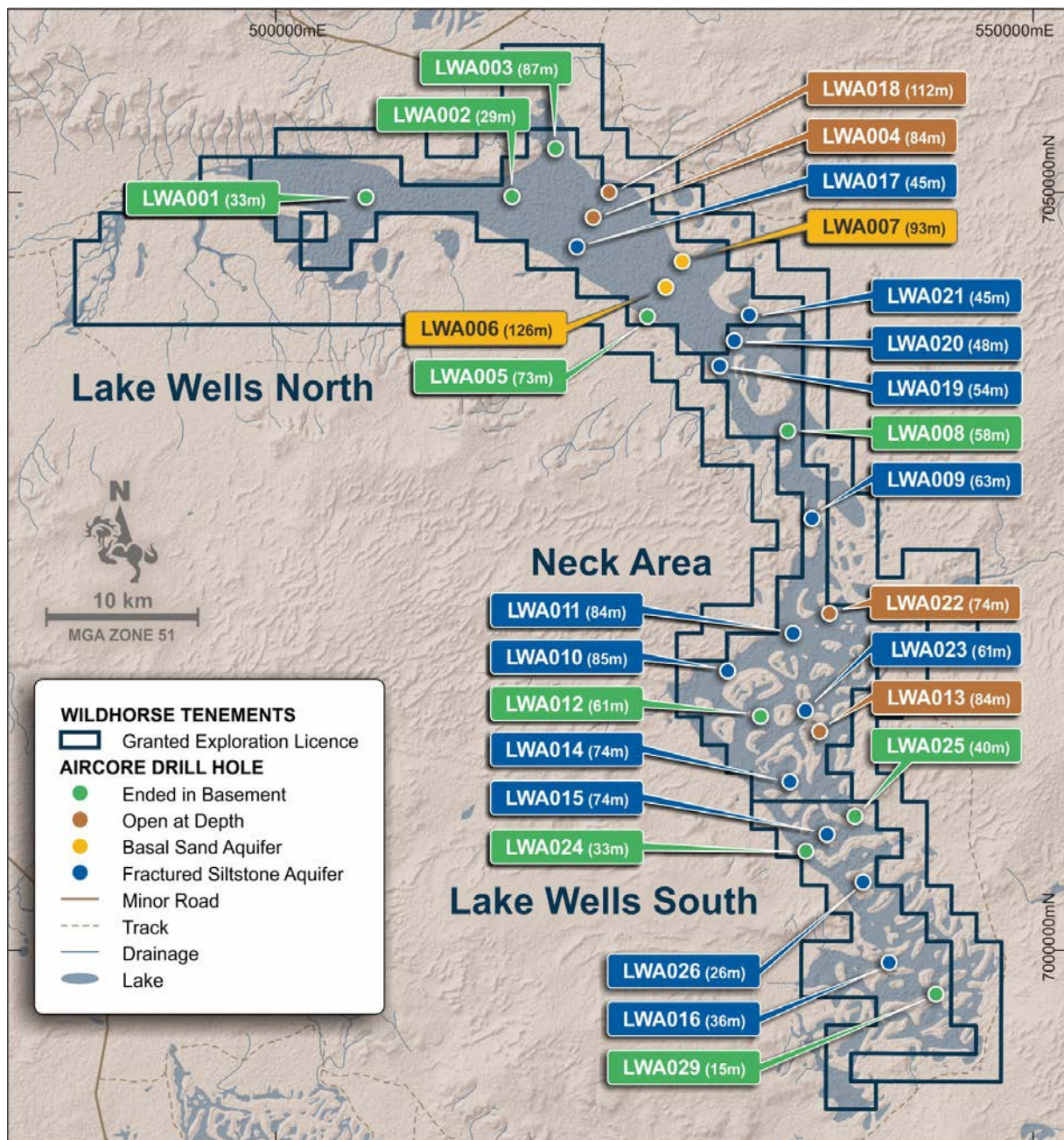
## **Completed Program**

Drilling with a spacing of less than 10km, has now been completed.

The program commenced in the southern arm of the lake before advancing north through the ‘neck area’ in the middle of the Lake and drilling the expansive northern arm of the lake (refer to Figure 4).

A total of 27 holes have been completed for 1,697m of drilling with the average depth being approximately 63m, with a range of 15m-126m. Figure 4 sets out the hole depths achieved.





**Figure 4 - Location of Air Core Drill Holes**

## **Geological Description**

A geological interpretation is presented in the cross section on Figure 5 and 6 below. The geological structure identified through air core drilling comprises (from surface):

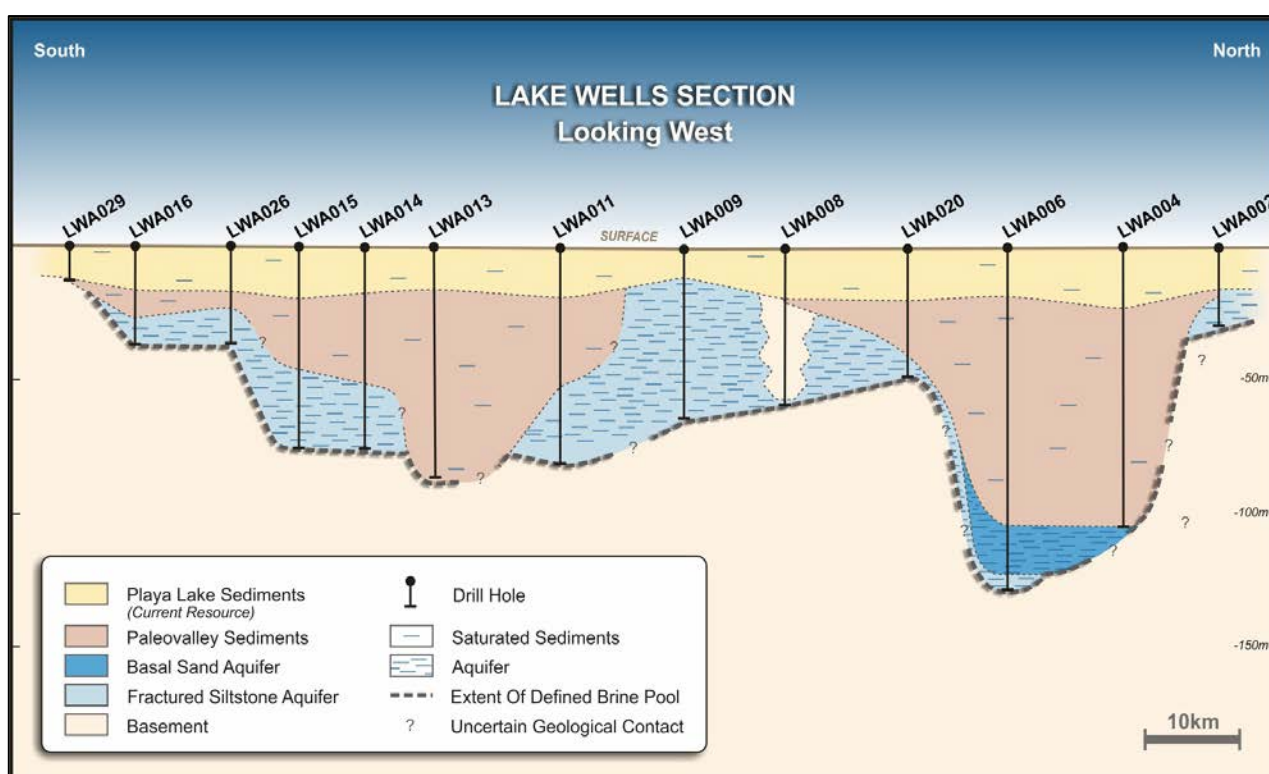
**Surficial Playa Lake Sediments:** Recent (Cainozoic), unconsolidated silt, sand and clay sediment containing variable abundance of evaporite minerals, particularly gypsum. The unit is ubiquitous across the salt lake surface. The thickness of the unit ranges from approximately 10 to 20m. This unit hosts the Measured, Indicated and Inferred Resource, estimated on the basis of shallow Auger Core drilling (see ASX Announcement dated 11 November 2015). Permeability is variable and is likely controlled by grainsize and sorting of the soft sediment.

**Paleovalley silt, sand and clay:** Tertiary, unconsolidated clay with variable interbeds of silt and sand. The thickness varies considerably, from negligible at the southern and northern margins of the lake, to greater than 60m thick in the central and northern parts of the lake. Recovery of brine samples from this unit was difficult due to the fine grained lithology. Intermittent samples were obtained from more permeable silt and sand inter-beds. These few samples exhibited high grade brine, consistent with overlying and underlying strata.

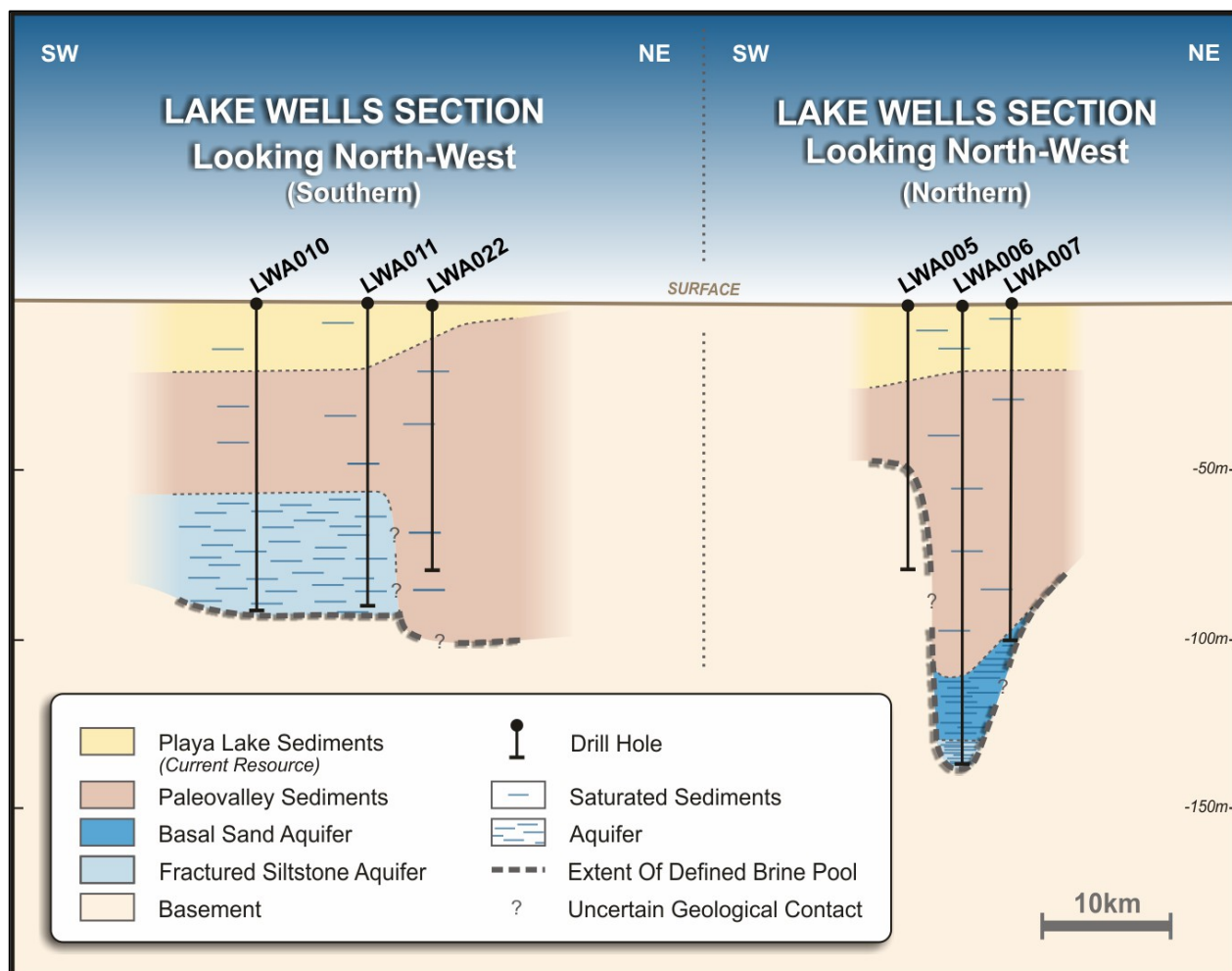
**Paleochannel Basal Sand:** Tertiary, unconsolidated medium to coarse grained sand. This unit was intersected in only a few holes that reached the deepest parts of the paleochannel in the northern part of the lake. The maximum intersected thickness was 15m (LWA006). The inferred permeability is high on the basis of coarse-grained lithology and relatively high brine flow rates measured during brine sampling. This unit is expected to represent a productive aquifer. The extent of the unit is poorly constrained since most drillholes in the deeper sections of the northern part of the lake failed to reach the basal units.

**Basement:** Proterozoic siltstone sediment. The upper part of the basement yielded water at variable rates for most drillholes which demonstrates elevated permeability. The permeability of this unit is likely to be associated with weathering and fracturing of the rock matrix. Where fractured, the rock is expected to act as a productive aquifer. The maximum thickness of fractured, brine yielding aquifer was 45m (LWA009). Most drillholes ended in fractured brine yielding aquifer and were constrained by the capacity of the aircore drilling method. The siltstone aquifer and brine pool potentially continues some depth below the range of the current drilling program.

Basement structure is variable. Basement is shallow (<30m) at the southern and northern margins of the lake and also in the central “neck” portion of the lake (Refer North-South transect). Basement lows are observed in the central southern and northern parts of the lake. In both areas, a number of holes drilled to below 100m depth, failed to intersect basement.



**Figure 5: North South transect**



**Figure 6: East West transects on North and South arms**

### **Results to Date**

Brine analysis has been completed on 224 samples from brine collected at 3m intervals where possible. The average brine chemistry of analysis received to date is detailed below. Refer to Appendix 2 for the complete brine analysis data.

Average Brine Chemistry	No. of Samples	K (mg/L)	Cl (mg/L)	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	SO <sub>4</sub> (mg/L)	TDS (mg/L)
North Arm of Lake	99	4,160	151,138	88,274	530	6,823	20,073	270,998
'Neck' Area of Lake	17	4,367	148,935	89,253	615	6,330	18,465	267,965
South Arm of Lake	108	3,647	145,042	82,595	654	6,719	16,980	255,638

The brine chemistry is relatively consistent both laterally and with depth. Overall the brine pool exhibits a slight declining concentration trend from north to south. In general concentration increases slightly (~5%) with depth in the northern part of the lake, and concentration decreases slightly (~5%) with depth in the southern part of the lake.

### **Brine QA/QC**

Brine samples were submitted to Bureau Veritas Minerals Laboratory in Perth. Reference brine standard solutions were procured and submitted blind to both laboratories with each batch of samples to check laboratory accuracy.



## **Outlook**

The results of the drilling campaign to date have been very satisfactory. The identification of permeable rock units (aquifers) at the base of the brine saturated sedimentary sequence is very encouraging. These aquifers have the potential to yield brine from bores at a high rate due to the depth and subsequent high hydrostatic pressure of the brine within the aquifer. Importantly, the aquifer's position at the base of the sedimentary sequence can be used to induce brine leakage from the overlying fine-grained material, essentially using the mechanism of "under-drainage" traditionally employed to dewater fine-grained material, for example saprolite over-burden in mine pits.

The rate at which bores can be pumped and the rate of brine drainage from overlying fine-grained material will be dependent on the permeability of the strata which has not yet been measured. Brine drainage rates can be optimised by bore spacing and design but cannot be increased above a natural limit.

A program of bore construction and test pumping is currently being designed in order to measure the hydraulic properties (permeability and storage) of the material hosting the brine. This work will enable estimation of brine production rates, and capex and opex estimates of brine production infrastructure as part of future technical studies. This work is the equivalent of mine planning and optimisation in traditional mineral project evaluation.

The balance of brine samples will be processed for incorporation into a model for estimation of a JORC estimate to the depth of the lake below the existing estimate.

## **Competent Persons Statement**

*The information in this report that relates to Exploration Results for Lake Well's is based on information compiled by Mr Ben Jeuken, who is a member Australian Institute of Mining and Metallurgy and a member of the International Association of Hydrogeologists. Mr Jeuken is employed by Groundwater Science Pty Ltd, an independent consulting company. Mr Jeuken 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 Jeuken consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*The information in this Report that relates to Mineral Resources is extracted from the report entitled 'Significant Maiden SOP Resource of 29Mt at Lake Wells' dated 11 November 2015. The announcement is available to view on [www.wildhorse.com.au](http://www.wildhorse.com.au). The information in the original ASX Announcement that related to Mineral Resources was based on, and fairly represents, information compiled by Mr Ben Jeuken, who is a member Australian Institute of Mining and Metallurgy and a member of the International Association of Hydrogeologists. Mr Jeuken is employed by Groundwater Science Pty Ltd, an independent consulting company. Mr Jeuken 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'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.*



## APPENDIX 1 - LAKE WELLS PROJECT AIRCORE DRILLHOLE DATA

Hole	East	North	RL	Dip	Azimuth	Total Depth (m)
LWA001	505951	7049667	440	-90	0	33
LWA002	515587	7049711	443	-90	0	29
LWA003	518455	7052875	443	-90	0	87
LWA004	520945	7048340	443	-90	0	84
LWA005	524525	7041800	443	-90	0	73
LWA006	525740	7043736	443	-90	0	126
LWA007	526820	7045435	443	-90	0	93
LWA008	533788	7034246	443	-90	0	58
LWA009	535393	7028485	443	-90	0	63
LWA010	529817	7018427	443	-90	0	85
LWA011	534138	7020901	443	-90	0	84
LWA012	531992	7015423	443	-90	0	61
LWA013	535896	7014425	443	-90	0	84
LWA014	533942	7011114	443	-90	0	74
LWA015	536387	7007649	443	-90	0	74
LWA016	540485	6999193	443	-90	0	36
LWA017	519881	7046397	443	-90	0	45
LWA018	521990	7050010	443	-90	0	112
LWA019	529290	7038550	443	-90	0	54
LWA020	530257	7040205	443	-90	0	48
LWA021	531247	7041902	443	-90	0	45
LWA022	536539	7022221	436	-90	0	74
LWA023	534960	7015800	443	-90	0	61
LWA024	534990	7006535	443	-90	0	33
LWA025	538225	7008825	443	-90	0	40
LWA026	538755	7004507	443	-90	0	26
LWA029	543567	6997102	443	-90	0	15

## APPENDIX 2 - BRINE SAMPLES CHEMICAL ANALYSIS RESULTS

Hole ID	Depth (m)	K (mg/L)	Cl (mg/L)	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	SO <sub>4</sub> (mg/L)
LWA001	6	3,880	150,600	88,500	464	7,080	23,900
LWA002	9	3,870	149,550	87,400	531	6,950	18,900
LWA002	12	3,960	149,350	87,800	542	6,970	19,700
LWA002	15	3,850	149,200	84,300	530	6,940	19,200
LWA002	18	3,890	150,250	85,500	504	6,960	19,500
LWA002	21	3,960	150,600	87,300	524	7,040	19,700
LWA002	24	3,990	153,250	87,300	511	7,150	19,600
LWA002	27	4,020	154,350	86,300	525	7,120	19,800
LWA002	29	4,180	156,450	89,900	515	7,190	20,000
LWA003	6	3,970	144,800	88,300	552	6,200	18,400
LWA003	9	4,040	143,200	89,000	570	6,090	18,100
LWA003	12	4,040	144,800	87,700	566	6,040	18,200
LWA003	15	4,140	144,450	89,000	577	6,210	18,500
LWA003	18	4,280	148,000	88,300	566	6,150	18,600
LWA003	21	4,350	151,000	90,000	570	6,020	18,300
LWA003	24	4,250	149,400	89,400	563	5,810	17,700
LWA003	27	4,220	144,450	89,200	572	5,750	17,400
LWA003	30	4,250	146,550	89,400	570	5,860	18,000
LWA003	33	4,260	146,750	87,500	556	5,880	17,800
LWA003	36	4,240	144,800	87,300	566	5,860	17,700
LWA003	39	4,170	147,250	88,300	550	5,770	17,800
LWA003	42	4,210	143,900	86,000	567	5,820	17,600
LWA003	45	4,190	144,950	88,300	561	5,580	17,600
LWA003	48	4,180	146,050	86,900	571	5,640	17,400
LWA003	51	4,160	146,050	87,800	566	5,690	17,400
LWA003	54	4,110	143,750	88,100	563	5,610	17,300
LWA003	57	4,150	144,800	89,200	574	5,610	17,400
LWA003	60	4,260	146,050	89,000	569	5,730	17,800
LWA003	63	4,230	147,100	88,600	582	5,740	17,500
LWA003	66	4,240	146,050	87,700	581	5,690	17,300
LWA003	69	4,160	145,850	86,500	570	5,730	17,700
LWA003	72	4,120	145,150	88,200	562	5,680	17,100
LWA003	75	4,170	142,850	88,100	571	5,760	17,800
LWA003	78	4,150	145,700	88,100	568	5,690	17,200
LWA003	81	4,270	152,750	92,600	498	6,500	19,800
LWA003	84	4,380	156,850	94,500	471	6,540	20,100
LWA003	87	4,260	152,750	91,400	505	6,470	19,700
LWA004	3	4,260	154,990	93,655	613	5,913	18,841
LWA004	63	4,400	174,400	99,400	378	8,190	23,400
LWA004	66	4,400	172,450	98,400	395	8,070	23,600
LWA004	78	4,140	154,900	93,300	463	7,420	21,700
LWA004	81	4,150	153,100	92,500	455	7,330	21,300
LWA005	3	3,900	149,050	85,500	482	7,820	21,700
LWA006	3	3,500	133,250	76,600	557	6,410	21,400
LWA006	6	3,470	132,400	75,200	542	6,280	21,800
LWA006	9	3,500	134,850	75,200	547	6,300	21,800
LWA006	12	3,550	133,250	76,500	556	6,460	21,800
LWA006	15	3,510	132,200	76,500	559	6,400	21,800
LWA006	21	3,570	133,250	77,800	553	6,490	21,900
LWA006	54	3,730	142,650	79,000	517	6,670	19,500
LWA006	75	3,990	154,550	84,300	481	7,140	21,000
LWA006	78	3,950	151,000	84,000	513	7,020	20,900
LWA006	108	3,880	150,450	82,800	514	7,090	20,900
LWA006	111	3,868	150,220	83,036	499	6,937	20,359
LWA006	114	3,944	151,285	84,214	513	7,140	20,637
LWA006	117	3,949	152,504	85,062	512	7,210	20,860
LWA006	120	3,880	154,550	83,200	500	7,040	21,100
LWA006	123	3,800	150,650	81,200	505	6,960	20,800
LWA006	126	3,800	152,250	81,200	494	6,900	20,600
LWA007	3	4,070	158,600	83,700	477	7,470	20,600

Hole ID	Depth (m)	K (mg/L)	Cl (mg/L)	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	SO <sub>4</sub> (mg/L)
LWA007	12	4,110	158,600	85,200	472	7,550	20,600
LWA007	18	4,030	155,950	81,900	467	7,420	21,100
LWA007	60	3,910	159,700	82,800	482	7,590	20,400
LWA007	90	3,740	157,900	88,800	518	7,290	20,200
LWA007	93	3,710	153,650	88,400	523	7,220	19,500
LWA008	57	4,530	157,750	96,100	548	7,090	20,300
LWA008	58	4,300	152,600	90,000	574	6,880	19,500
LWA009	21	4,510	137,900	78,400	631	5,100	16,800
LWA009	24	4,520	144,950	86,900	637	5,720	17,400
LWA009	27	4,560	148,350	88,700	639	5,860	17,600
LWA009	30	4,400	146,750	87,800	625	6,070	18,100
LWA009	33	4,450	146,400	88,500	637	6,110	18,200
LWA009	36	4,350	148,850	90,000	624	6,230	17,900
LWA009	39	4,360	147,100	89,000	632	6,290	18,600
LWA009	42	4,180	148,150	86,800	603	6,370	18,100
LWA009	45	4,300	152,950	90,200	601	6,730	19,000
LWA009	48	4,240	149,950	89,700	610	6,520	19,000
LWA009	51	4,240	149,950	88,300	608	6,410	18,200
LWA009	54	4,270	149,050	89,300	609	6,430	18,700
LWA009	57	4,350	151,900	92,400	624	6,770	19,000
LWA009	60	4,320	152,050	93,900	633	6,730	19,300
LWA009	63	4,360	147,250	91,300	624	6,300	18,200
LWA010	3	4,460	151,550	90,800	576	6,180	18,700
LWA010	6	4,460	150,450	91,100	603	6,240	19,000
LWA010	9	4,480	151,900	91,100	600	6,260	19,100
LWA010	12	4,390	150,450	89,000	579	6,160	18,100
LWA010	15	4,520	149,600	90,800	584	5,920	18,200
LWA010	18	4,550	148,850	90,600	600	5,970	18,200
LWA010	63	3,770	148,850	87,100	548	6,840	19,200
LWA010	66	3,900	152,600	88,300	555	7,110	19,500
LWA010	69	4,030	151,550	90,400	556	7,320	20,100
LWA010	72	3,950	152,250	89,400	567	7,040	19,500
LWA010	75	3,930	149,750	88,700	569	6,980	19,100
LWA010	78	3,980	152,600	89,400	542	7,110	19,900
LWA010	81	3,980	152,400	91,500	567	7,060	19,700
LWA010	84	3,990	154,200	90,600	554	7,240	19,700
LWA010	85	3,950	152,250	88,700	570	7,150	19,800
LWA011	12	4,110	131,300	77,700	735	5,130	16,400
LWA011	15	4,100	130,950	76,800	734	5,110	16,400
LWA011	57	4,440	164,450	95,400	483	7,540	20,600
LWA011	60	4,180	152,050	88,000	563	7,010	19,200
LWA011	63	4,210	151,550	89,100	563	6,940	19,000
LWA011	66	4,220	151,700	88,800	567	6,940	19,400
LWA011	69	4,150	152,950	86,900	557	7,000	19,100
LWA011	72	4,260	157,000	88,500	545	7,100	19,500
LWA011	75	4,180	152,400	87,300	559	6,950	19,300
LWA011	78	4,230	155,600	87,800	559	7,130	19,700
LWA011	81	4,190	152,950	87,200	555	6,940	19,200
LWA011	84	4,090	152,050	86,900	578	7,010	18,700
LWA012	6	3,410	148,850	86,800	607	6,920	18,200
LWA012	36	4,280	161,450	92,800	553	6,680	18,400
LWA013	48	3,450	147,800	87,400	599	6,810	18,800
LWA013	51	3,430	146,400	85,300	592	6,730	18,900
LWA013	54	3,410	145,700	85,300	595	6,600	18,500
LWA014	3	3,750	123,150	71,300	884	4,160	12,700
LWA014	6	3,540	118,200	69,700	854	4,490	14,000
LWA014	15	3,510	118,900	68,700	875	4,390	13,800
LWA014	18	3,560	117,150	69,600	879	4,360	14,100
LWA014	36	3,140	120,150	69,900	911	5,370	13,900
LWA014	39	3,300	129,750	74,000	854	5,760	13,100
LWA014	42	3,340	134,850	75,600	880	5,940	11,900
LWA014	45	3,500	137,350	79,700	951	6,250	12,300

Hole ID	Depth (m)	K (mg/L)	Cl (mg/L)	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	SO <sub>4</sub> (mg/L)
LWA014	48	3,400	134,150	77,400	935	6,060	12,400
LWA014	51	3,430	137,350	78,100	918	6,120	12,400
LWA014	54	3,460	136,650	78,600	936	6,170	12,800
LWA014	57	3,380	135,050	76,800	934	6,060	12,300
LWA014	60	3,300	138,250	78,400	740	6,240	15,000
LWA014	63	3,290	138,250	78,200	724	6,180	14,900
LWA014	66	3,360	140,550	80,200	741	6,280	15,300
LWA014	69	3,410	139,450	81,400	755	6,430	15,700
LWA014	72	3,400	139,650	81,800	748	6,400	15,800
LWA014	75	3,400	138,400	80,800	749	6,450	15,700
LWA015	3	3,910	160,400	91,000	589	6,900	15,300
LWA015	6	3,950	153,100	90,600	683	6,860	15,100
LWA015	9	3,780	152,750	87,300	652	6,580	14,500
LWA015	15	3,790	152,400	86,600	668	6,530	14,700
LWA015	18	3,800	153,300	87,600	691	6,600	14,600
LWA015	51	3,230	140,550	75,700	631	6,110	15,800
LWA015	54	3,370	141,050	79,700	675	6,430	16,100
LWA015	57	3,410	140,200	80,400	682	6,520	16,300
LWA015	60	3,300	141,400	79,500	662	6,500	16,100
LWA015	63	3,360	141,950	82,000	671	6,630	16,300
LWA015	66	3,380	143,750	82,900	674	6,740	16,700
LWA015	69	3,350	141,950	81,900	662	6,670	16,400
LWA015	72	3,380	141,950	82,200	662	6,720	16,400
LWA015	75	3,320	143,000	81,600	647	6,700	16,400
LWA016	3	2,900	152,050	83,800	524	9,630	19,900
LWA016	6	2,680	153,850	76,900	459	8,870	19,200
LWA016	9	2,800	147,100	81,300	560	9,240	19,700
LWA016	12	2,800	147,100	80,800	573	9,300	19,700
LWA016	27	3,410	141,250	80,800	682	6,830	16,400
LWA016	30	3,660	149,950	85,600	635	7,080	17,400
LWA016	33	3,580	149,400	83,300	596	6,920	16,800
LWA016	36	3,680	154,000	85,700	576	7,110	17,100
LWA017	42	4,370	157,700	89,700	479	7,360	21,400
LWA017	45	4,460	158,750	89,000	478	7,490	21,600
LWA018	3	4,210	150,550	88,300	592	6,210	18,500
LWA018	6	4,170	147,000	87,200	603	6,120	18,100
LWA018	9	4,200	147,700	88,300	589	6,160	18,300
LWA018	49	4,290	156,550	90,800	492	7,850	22,500
LWA018	54	4,180	154,950	90,600	478	7,610	22,300
LWA018	57	4,320	155,450	93,300	504	7,940	23,000
LWA018	60	4,260	156,350	93,800	496	7,810	22,900
LWA018	63	4,300	156,700	92,500	498	7,810	22,600
LWA018	69	4,320	157,950	92,200	500	7,900	22,100
LWA018	72	4,310	155,650	92,000	498	7,940	22,600
LWA018	75	4,320	157,400	93,700	490	7,980	22,900
LWA018	78	4,360	161,300	94,100	487	8,060	23,100
LWA018	81	4,340	154,950	94,600	512	7,960	23,100
LWA018	96	4,160	153,350	91,000	495	7,990	24,000
LWA018	99	4,100	155,850	91,300	485	7,900	23,700
LWA018	102	4,200	154,950	93,100	495	7,880	23,500
LWA018	105	4,180	157,400	93,200	494	7,910	23,500
LWA018	108	4,160	154,500	92,500	497	7,940	23,500
LWA019	54	4,280	152,700	85,200	566	7,000	18,700
LWA020	36	4,300	159,350	93,200	482	7,650	21,200
LWA020	39	4,410	156,000	94,100	546	7,780	21,800
LWA020	42	4,370	155,100	91,500	555	7,630	21,400
LWA020	45	4,410	159,000	92,900	520	7,760	21,100
LWA020	48	4,420	152,100	92,400	566	6,930	20,500
LWA021	12	4,980	154,050	92,600	602	6,390	18,200
LWA021	15	4,940	153,550	92,000	609	6,240	17,900
LWA021	18	4,940	153,550	92,600	615	6,290	17,800
LWA021	21	4,980	154,750	92,900	616	6,290	18,000



Hole ID	Depth (m)	K (mg/L)	Cl (mg/L)	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	SO <sub>4</sub> (mg/L)
LWA021	24	4,980	154,400	92,500	609	6,290	17,400
LWA021	36	4,710	155,450	90,000	559	7,200	19,300
LWA021	39	4,490	155,200	88,000	537	6,880	18,500
LWA021	42	4,630	160,200	90,000	529	7,070	18,600
LWA022	15	3,430	152,350	84,000	557	8,110	18,000
LWA022	24	3,580	157,150	86,600	524	8,390	18,900
LWA022	30	3,510	156,100	86,100	551	8,300	18,300
LWA022	33	3,470	158,200	84,600	543	8,140	18,500
LWA022	36	3,490	155,550	85,100	560	8,250	18,300
LWA022	42	3,520	156,250	84,700	557	8,320	18,500
LWA022	48	3,460	155,050	84,200	546	8,290	18,500
LWA022	51	4,040	156,100	88,400	562	7,500	18,600
LWA022	54	3,770	153,450	84,900	569	7,230	18,300
LWA022	57	3,730	152,000	83,800	591	7,140	17,700
LWA022	60	3,680	151,450	83,400	587	7,120	18,000
LWA022	63	3,480	140,800	77,400	559	6,530	16,700
LWA022	66	3,720	145,100	80,900	585	6,970	17,600
LWA022	69	3,800	154,850	85,000	541	7,290	18,300
LWA023	9	3,000	101,550	59,300	928	4,450	14,500
LWA023	12	3,020	108,300	61,300	879	4,770	15,200
LWA023	15	3,040	108,300	60,800	877	4,760	14,900
LWA023	45	3,110	109,200	62,600	868	4,900	15,200
LWA023	48	3,440	147,200	82,300	641	6,880	17,200
LWA023	51	3,510	146,700	81,900	601	6,930	17,400
LWA023	54	3,340	142,600	79,600	633	6,470	17,100
LWA023	57	3,350	140,300	80,700	649	6,470	17,000
LWA023	61	3,510	144,350	81,800	632	6,650	17,000
LWA024	9	3,860	156,100	85,200	641	6,810	14,900
LWA024	12	3,860	156,600	85,400	643	6,790	15,300
LWA024	15	3,910	157,000	88,100	644	6,910	15,200
LWA024	21	4,000	159,450	88,200	632	7,010	15,300
LWA025	9	2,850	120,600	67,300	854	6,110	14,400
LWA025	18	3,240	136,750	76,400	727	6,760	15,400
LWA026	30	3,790	151,100	85,500	608	6,890	17,400
LWA026	33	3,720	151,100	82,600	628	6,830	17,100
LWA026	36	3,790	150,400	83,400	626	6,980	17,300
LWA029	6	3,940	166,550	89,700	494	7,960	17,900
LWA029	9	3,800	158,950	89,300	552	7,700	17,600
LWA029	12	3,320	140,800	78,300	650	7,080	17,300
LWA029	15	2,840	122,150	68,600	761	6,280	16,900

## APPENDIX 3 – JORC TABLE ONE

### Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<p><i>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.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>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.</i></p>	<p>Drilling and sampling was undertaken using aircore drilling. Geological chip samples were taken every meter.</p> <p>Brine samples were taken from the cyclone at the end of each drill rod where possible.</p>
<b>Drilling techniques</b>	<p><i>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).</i></p>	<p>Aircore drilling, 85mm hole diameter. All hole vertical.</p>
<b>Drill sample recovery</b>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>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.</i></p>	<p>Geological sample recovery was high, effectively 100%</p> <p>Brine sample recovery was low, approximately 40%. Fine grained lithologies do not yield brine at a rate that can be sampled by aircore methods.</p> <p>Sample bias is not considered to have occurred. There is a relationship between lithology and brine recovery, but no identified relationship between brine concentration and brine recovery.</p>
<b>Logging</b>	<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>All drill holes were geologically logged by a qualified geologist, noting in particular moisture content of sediments, lithology, colour, induration, grain size, matrix and structural observations. A digital drill log was developed specifically for this project.</p>
<b>Sub-sampling techniques and sample preparation</b>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>Brine was sampled directly from the cyclone. This ensures that the sample is recovered from the inside return, i.e from the bit face.</p> <p>Careful aircore drilling with low pressure air aims to collect a brine sample that is representative of the interval immediately above the bit face. However this method does not categorically exclude the potential for downhole mixing of brine. The fact that for this project tight intervals did not yield brine, whilst underlying permeable intervals did yield brine provides confidence that representative samples with depth have been obtained. The use of reverse circulation, double walled drilling methods (i.e. aircore or RC) for preliminary brine resource definition is an established technique (Refer Lithium Americas, Lithium One, Rodinia Lithium, and Rum Jungle Resources' technical disclosures to market).</p> <p>Sample bottles are rinsed with brine which is discarded prior to sampling.</p> <p>Geological logs are recorded in the field based on inspection of cuttings. Geological samples are retained for each hole in archive.</p> <p>All brine samples taken in the field are split into two sub-samples: primary and duplicate.</p>
<b>Quality of assay data and laboratory tests</b>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p>	<p>Primary samples were sent to Bureau Veritas Minerals Laboratory, Perth.</p> <p>Brine samples were analysed using ICP-AES for K, Na, Mg, Ca, with chloride determined by Mohr titration and alkalinity</p>

Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p> <p><i>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.</i></p>	<p>determined volumetrically. Sulphate was calculated from the ICP-AES sulphur analysis</p> <p>Reference standard solutions were sent to Bureau Veritas Minerals Laboratory to check accuracy. Reference standards analysis reported an average error of less than 10%.</p>
<b>Verification of sampling and assaying</b>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Data entry is done in the field to minimise transposition errors.</p> <p>Brine assay results are received from the laboratory in digital format to prevent transposition errors and these data sets are subject to the quality control described above.</p> <p>Independent verification of significant intercepts was not considered warranted given the relatively consistent nature of the brine.</p>
<b>Location of data points</b>	<p><i>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.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>Hole co-ordinates were captured using hand held GPS.</p> <p>Coordinates were provided in GDA 94_MGA Zone 51.</p> <p>Topographic control is obtained using Geoscience Australia's 3-second digital elevation product.</p> <p>Topographic control is not considered critical as the salt lakes are generally flat lying and the water table is taken to be the top surface of the brine resource.</p>
<b>Data spacing and distribution</b>	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>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.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Drill hole spacing is on average 4.1 km. The drilling is not on an exact grid due to the irregular nature of the salt lake shape and difficulty obtaining access to some part of the salt lake.</p>
<b>Orientation of data in relation to geological structure</b>	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>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.</i></p>	<p>All drill holes were vertical as geological structure is flat lying.</p>
<b>Sample security</b>	<p><i>The measures taken to ensure sample security.</i></p>	<p>All brine samples were marked and kept onsite before transport to the laboratory.</p> <p>All remaining sample and duplicates are stored in the Perth office in climate-controlled conditions.</p> <p>Chain of Custody system is maintained.</p>
<b>Audits or reviews</b>	<p><i>The results of any audits or reviews of sampling techniques and data.</i></p>	<p>Data review is summarised in Quality of assay data and laboratory tests and Verification of sampling and assaying. No audits were undertaken.</p>

## Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<p><i>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.</i></p> <p><i>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.</i></p>	<p>Tenements drilled were granted exploration licences 38/2710, 38/2821, 38/2824, 38/3055, 38/3056 and 38/3057 in Western Australia.</p> <p>Exploration Licenses are held by Piper Preston Pty Ltd (fully owned subsidiary of ASLP).</p>
<b>Exploration done by other parties</b>	<p><i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<p>No other known exploration has occurred on the Exploration Licenses.</p>
<b>Geology</b>	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>Salt Lake Brine Deposit</p>
<b>Drill hole</b>	<p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following</i></p>	<p>Exploration drilling comprised 27 aircore holes. Details are</p>

Criteria	JORC Code explanation	Commentary
<b>Information</b>	<p>information for all Material drill holes:</p> <ul style="list-style-type: none"> <li>o easting and northing of the drill hole collar</li> <li>o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>o dip and azimuth of the hole</li> <li>o down hole length and interception depth</li> <li>o hole length.</li> </ul> <p>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.</p>	presented in the report.
<b>Data aggregation methods</b>	<p>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.</p> <p>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.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>Within the salt lake extent no low grade cut-off or high grade capping has been implemented.</p> <p>Data aggregation for this report comprised averaging of all brine samples for three defined parts of the lake: Northern Arm, Neck, and Southern Arm per drillhole to present an average concentration per hole.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>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').</p>	<p>The brine resource is inferred to be consistent and continuous through the full thickness of the sediments. The unit is flat lying and drillholes are vertical hence the intersected downhole depth is equivalent to the inferred thickness of mineralisation.</p>
<b>Diagrams</b>	<p>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.</p>	Addressed in the announcement.
<b>Balanced reporting</b>	<p>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.</p>	All results have been included.
<b>Other substantive exploration data</b>	<p>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.</p>	All material exploration data reported.
<b>Further work</b>	<p>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	<p>Hydraulic testing be undertaken, for instance pumping tests from bores and/or trenches to determine, aquifer properties, expected production rates and infrastructure design (trench and bore size and spacing).</p> <p>Diamond Core drilling to obtain sample for porosity determination.</p> <p>Lake recharge dynamics be studied to determine the lake water balance and subsequent production water balance. For instance simultaneous data recording of rainfall and subsurface brine level fluctuations to understand the relationship between rainfall and lake recharge, and hence the brine recharge dynamics of the Lake.</p>