GOLDPHYRE
RESOURCES LIMITED

29 June 2016

Strong Maiden Resource Underpins Goldphyre's WA Potash Development Strategy

JORC Resource of 70Mt of Sulphate of Potash (SOP); Development strategy for Lake Wells Potash Project to be accelerated

Highlights

- Using *total* porosity[1] (*for industry comparison purposes only*), total in-situ Inferred Mineral Resource Estimate of

70 million tonnes of SOP at 8.05 kg/m^3 including

High-grade zone: 40 Mt of SOP at 9.03 kg/m^3

- Using specific yield[2] (*drainable* porosity), Inferred Mineral Resource Estimate of

18.4 million tonnes of SOP at 8.05 kg/m^3 including

High-grade zone: 10.5 Mt of SOP at 9.03 kg/m^3

- **Project very well located to existing infrastructure**
- **Proven brine abstraction technique based on common, efficient palaeochannel bores planned**
- **The most economically favourable abstraction of the high grade zone of SOP Resource will be the focus to create early value for shareholders**
- **During Q3 the key de-risking activity will be testing bore flow rates**
- **Test production bores to be installed with steady stream of results through the next two quarters**

"This is a very strong result for a Maiden Resource. We are highly confident we can advance Lake Wells quickly and take full advantage of the outstanding opportunity we have to create value for Goldphyre shareholders." – *Goldphyre Executive Chairman Matt Shackleton*

[1] Total porosity does not give any consideration to the recoverability of the brine containing the Sulphate of Potash minerals
[2] Specific yield reflects the amount of recoverable Sulphate of Potash, in compliance with NI43-101, the only CRIRSCO reporting code to include a brine standard

Goldphyre Resources (ASX: GPH) is pleased to advise that it is firmly on track to become a long-term potash supplier to the Australian agricultural industry following the calculation of a strong Maiden Resource for its 100% owned/controlled Lake Wells Potash Project.

In light of this strong Maiden Resource, Goldphyre will now embark on a strategy to accelerate development of the Lake Wells Potash Project by installing test production bores and establishing both laboratory and field-based evaporation trials.

This work will form part of a wider development study on the Lake Wells Potash Project.

Goldphyre Executive Chairman Matt Shackleton said the total dependence of Australian agriculture on imported potash, the logistical advantages enjoyed by Lake Wells and the size and grade of Goldphyre's Maiden Mineral Resource were all factors that governed the decision to accelerate the development strategy.

"We took a risk in pursuing the depth extensions to the potash mineralisation at Lake Wells," Mr Shackleton said.

"The reward for our shareholders is that we now have a JORC Resource which delivers substantial scale and gives us extremely strong foundations on which we can advance Lake Wells.

"Uniquely, Lake Wells has a highly desirable combination of a strong JORC resource, is amenable to a proven technology for brine abstraction, and has numerous logistical advantages, including access to existing infrastructure.

"Given these factors, we are highly confident we can advance Lake Wells quickly and take full advantage of the outstanding opportunity we have to create value for Goldphyre shareholders."

Next Steps

Goldphyre is finalising plans for the installation of four test production bores at Lake Wells during Q3, with a view to establishing bore yields from the upper and basal aquifers. The key de-risking activity during the second half of 2016 will be testing bore flow rates, and Goldphyre expects a steady stream of results through Q3 and Q4.

In conjunction with these installations, the Company is also modelling field-based pond evaporation trials. Ideally, the test pumping and the field evaporation trials will be able to be conducted at the same time.

Laboratory-based evaporation trials are also being conducted on a bulk sample of brine collected from the Project. The results of these trials will be used to drive the design of the field ponds.

The next steps as outlined above are being undertaken to demonstrate that the substantial SOP high-grade zone at Lake Wells is amenable to a proven technology for brine abstraction. Simple brine abstraction techniques have the potential to deliver very favorable economic outcomes for the project, especially given the location of the SOP high-grade zone to existing, accessible infrastructure.

TECHNICAL DISCUSSION

Mineral Resource Estimate Summary

A Mineral Resource has been calculated on the Company's Sulphate of Potash (SOP) brine project at Lake Wells. Successful exploration contributing to the Mineral Resource estimate has included: auger sampling programs, passive seismic surveys and mud-rotary (MR) & air-core (AC) drill programs over the 2015 - 2016 field seasons (Table 2, Figure 2, Appendices 1 and 2).

The Mineral Resource (JORC 2012 Code compliant), which has been measured taking into account potential future economic abstraction, has been classified as Inferred (Table 1, Figure 1) and is estimated at 18.4 Mt at 8050 mg/L (8.050 kg/m^3) Sulphate of Potash ('SOP'). A high-grade zone occupying the western part of the Lake Wells Potash Project ('LWPP'), defined as the 'Western High Grade Zone' has an Inferred estimate of 10.5 Mt at 9028 mg/L (9.028 kg/m^3) SOP.

Inferred Resource for GPH Lake Wells Potash Brine (JORC compliant, taking account of Potential Future Economic Abstraction)

Hydrogeological Unit	Volume of Aquifer	Specific Yield	Drainable Brine Volume	K Concentration (mg/L)	SOP Grade (mg/L) (K * 2.23)	SOP Resource
	Mm^3	Mean	Mm^3	Weighted Mean Value	Weighted Mean Value	Mt
Western High Grade Zone						
Surficial Aquifer	5,207	16%	833	3842	8568	7.1
Clay Aquitard	4,947	6%	297	4,244	9464	2.8
Basal Sand Aquifer	222	23%	51	4,539	10121	0.5
Sub Total (Mm^3/Mt)	***10,376***		***1181***	***4049***	***9028***	***10.5***
Eastern Zone						
Surficial Aquifer	3,435	16%	550	3428	7644	4.2
Clay Aquitard	2,833	6%	170	3,329	7423	1.3
Basal Sand Aquifer	231	23%	53	3,330	7426	0.4
Sub Total (Mm^3/Mt)	***6,499***		***773***	***3381***	***7540***	***5.9***
Southern Zone						
Surficial Aquifer	1,296	16%	207	2742	6115	1.3
Clay Aquitard	1,901	6%	114	2,620	5842	0.7
Basal Sand Aquifer	82	23%	19	2,871	6401	0.1
Sub Total (Mm^3/Mt)	***3,279***		***340***	***2674***	***5963***	***2.1***
Total						
Surficial Aquifer	9,937	16%	1383	3555	7929	12.6
Clay Aquitard	9,682	6%	467	3657	8155	4.7
Basal Sand Aquifer	535	23%	123	3761	8387	1.0
Total *(Mm^3/Mt)*	**20,154**		**1972**	**3610**	**8050**	**18.4**

Inferred Resource based on modelled aquifer volume, mean specific yield and weighted mean K concentrations (derived from modelling)

Table 1: Inferred Mineral Resource measured using Specific Yield (drainable porosity)[i]

Hole Type	No. Holes	Metres
Mud Rotary-Diamond	5	734.4
Air Core	27	2266.9
Auger	18	20.6
TOTAL	**50**	**3021.9**

Table 2: Drill Hole Summary

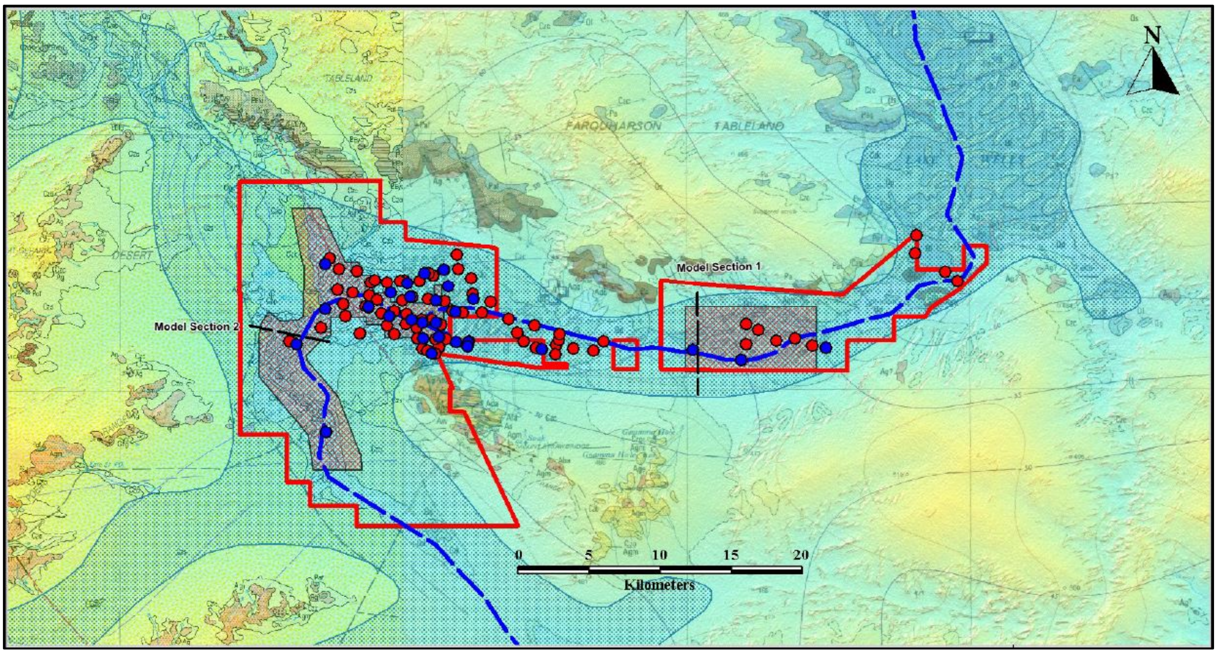

Figure 1: Inferred Resource Model Outline with hole & auger collar plan

The Inferred Resource is 18.4 million tonnes of SOP grading 8,050 mg/l (8.05kg/m^3). The resource comprises three zones:

- The western high grade zone consisting of 10.5Mt with a weighted mean average K grade of 4,049 mg/L (9,029 mg/L of SOP)
- The eastern zone consisting of 5.9Mt with a weighted mean average K grade of 3,381 mg/L (7,540 mg/L of SOP), and
- The southern zone consisting of 2.1Mt with a weighted mean average K grade of 2,674 mg/L (5,963 mg/L of SOP).

The Inferred Mineral Resource has been calculated on the southern section of the Lake Wells playa lake system and underlying sediments that trend throughout the Goldphyre controlled tenement package.

The aquifer geometry can be modelled from a combination of auger/air core/mud rotary drill-holes (both brine exploration and historical gold exploration holes) and passive seismic surveys. Drill holes are spread across the entire resource area and reach depths of up to 174 metres below ground level (mbgl). 32 drill holes (27 air core and 5 mud rotary) and 18 auger holes provided surface and subsurface geological and analytical data specific to brine resource estimation work.

Mineral Resource Estimate Discussion

Climate and Hydrology

Lake Wells is located on the north eastern margin of the Yilgarn Craton in the interior of Western Australia, an arid region with an average annual rainfall of approximately 200mm. The climate is characterised by hot, dry summers and cold winters, with average maximum temperatures of around 30^{0}C. Day time temperatures can exceed 40^{0}C during the summer (December to February), with overnight temperatures below zero possible during the winter (June to August). Pan evaporation rates for the area are estimated to be 3,200mm/year, such that the potential evaporation rates in the area far exceed the average annual rainfall. The large environmental moisture deficit provides opportunity for solar evaporation of any produced brine.

Inundation of the lake is likely to only occur following infrequent, large rainfall events.

The Company's Lake Wells Potash Project (LWPP) occurs in the south west region of the lake. From a review of available SRTM data for the region, the south west lake area is estimated to have a catchment area of 6,600km^2, with the majority of the catchment area flowing from the west. The southwest lake chain has an approximate surface area of 170km^2.

Geological Setting

A well developed system of rivers drained the interior of Australia during the Tertiary period, up to 65Ma (Beard, 2002[ii]). The Tertiary period is marked by three broad cycles of weathering followed by erosion and deposition and these three cycles are preserved in the geology of the central and western interior of the continent.

The Tertiary sediments including (from oldest to youngest): a) alluvial and lacustrine sands, b) clay, and c) alluvial-colluvial-lacustrine sands-clays-grit, were deposited in the palaeoriver valleys. Tectonic movements during the Tertiary period, combined with the onset of aridity in the Pliocene-Pleistocene, resulted in significant changes to Tertiary river courses, such that the current drainage system does not always align with the palaeodrainage system.

Project Geology

Lake Wells now forms part of an internally draining terminal drainage with most of its catchment to the west. During the Tertiary, the Carnegie and Keene palaeorivers drained from the north into the Wells palaeoriver (Beard 2002). Consistent with this, investigations during studies at LWPP show a deep palaeochannel extending towards the north eastern tenement boundary.

The Wells-Carnegie system was extensive, with eroded valleys up to 170m deep and drainage to the Eucla coast (Beard, 2002). Thus, sediments underlying the current Lake Wells salt lake infill a large Tertiary palaeovalley and are likely to be extensive over a wide area both upstream and downstream.

Weathered Archaean rocks including dolerite, basalt, granite, porphyry, felsic volcanoclastics and ultramafic schistose rocks form the incised basement of the palaeovalley terrain.

Hydrostratigraphy

The hydrogeology of the LWPP comprises three units – a surficial aquifer, a middle clay aquitard and basal sand aquifer. All units have been drilled and brine-samples collected. The presence of permeable horizons (including sand) throughout the geological sequence, from which pumping could occur, results in reasonable prospects for long term abstraction of brine from the entire aquifer sequence.

32 brine exploration drill holes have been completed and exploration results have been reported for the LWPP[iii iv]. These results covered drilling programs of 27 air-core holes and 5 mud-rotary drill holes. Drilling depths were up to 174m. Drilling locations are shown in Figures 1 & 2.

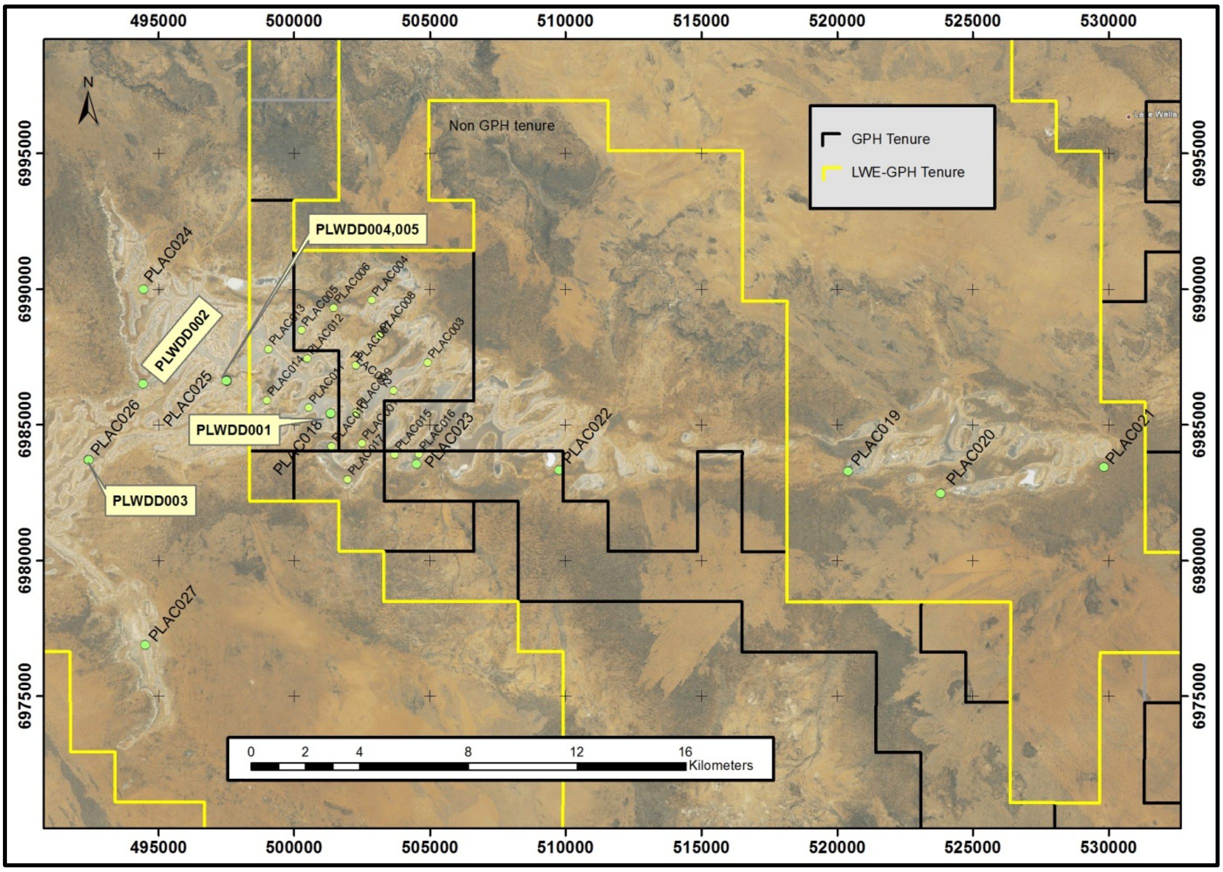

Figure 2. Drill hole plan with orthoimage base.

The drilling shows a deep Tertiary valley with predominantly lacustrine clays and minor sand interbeds, at depths of up to 174 mbgl. The drill-holes on the margins of the palaeovalley encountered basement that also provided control on the width and cross sectional shape of the valley system.

The lacustrine clay (with sandy interbeds) is overlain by a mixed alluvial sequence comprising sand, clay, evaporite and precipitate deposits. The sequence overlying the clay is highly variable although there is a reasonably consistent unit of predominantly sand at the base of this sequence.

Eight of the drill holes encountered sand at the base of the Tertiary palaeovalley sequence. The sand occurred at depths of between 100 mbgl and 140 mbgl in the eastern part of the project area and 160 mbgl and 170 mbgl in the west of the project area. The depth to the base of the sand has been used to calibrate interpretation of the passive seismic geophysical survey and extend the interpreted palaeochannel system. The thickness of the encountered sand units varies from 10m to 30m.

Hydrogeological units within the LWPP are described below:

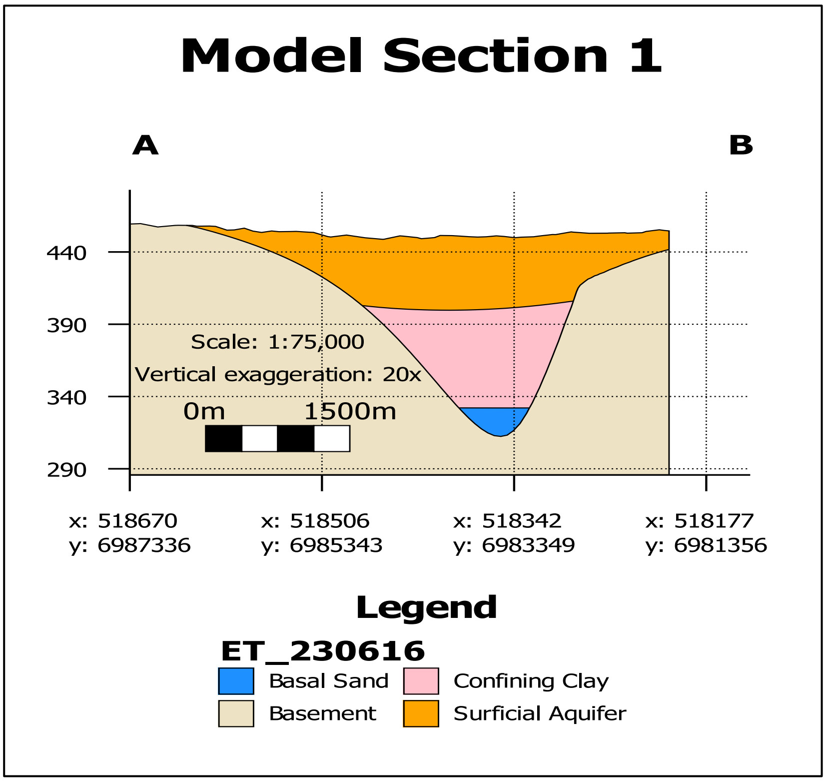

Figure 3: Model section 1 looking east

A surficial aquifer unit of Pliocene – Quaternary mixed alluvial/lacustrine sediments comprising clayey sands, calcrete, laterite and evaporate deposits. This unit has been encountered extensively in the exploration drilling and auger holes. The hydraulic properties of this unit are highly variable, depending on the mix of each sediment type. Overall, it is likely to form a low-permeability unconfined aquifer although locally, calcrete, silcrete, laterite, grit and evaporites may be very permeable. Significantly, a less clayey and predominantly sand-bed has been encountered at the base of this sequence across the project area. This sandy member is recognised as 'Upper Sand' unit and will contribute to the ability to pump from this surficial aquifer unit.

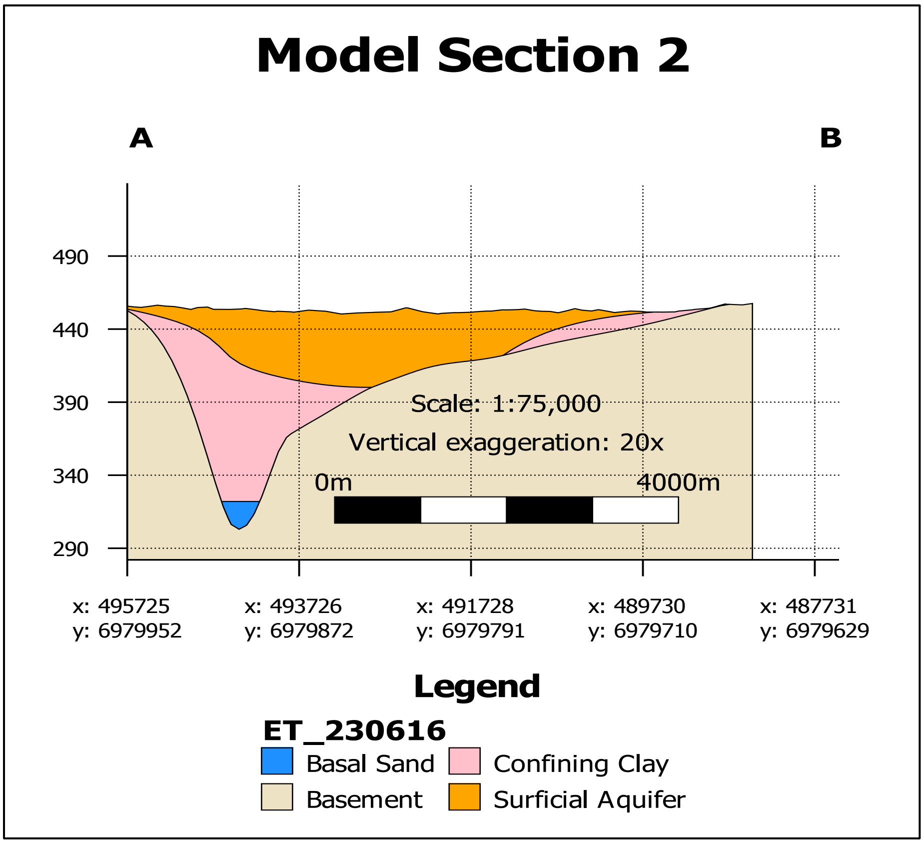

Figure 4: Model section 2 looking north

A Miocene clay aquitard comprising puggy lacustrine clay with sandy interbeds. This unit has been drilled extensively during the air-core drilling program.

Clay has a high porosity and this unit will contain substantial volumes of brine. However, the recoverability of this brine will be limited because: 1. clay has a low specific yield (i.e. only a small proportion of the brine contained in pore-space will actually drain); and 2. the unit will be of low permeability and direct abstraction of brine from the clay will be difficult. The clay unit likely acts as a confining layer for the underlying basal sand and a source of downward leakage during the pumping of the basal sand aquifer.

An Eocene basal sand has been encountered in 8 drill holes located across the entire project area. The presence of this basal sand is consistent with the regional geological description above and the palaeochannel thalweg as interpreted from the geophysical survey. The sand forms a permeable aquifer. It will have relatively high specific yield: i.e. over 50% of the brine contained within the pore-space will be recoverable. Additionally, pumping from the sand will lower the hydrostatic pressure within this unit, facilitating drainage of brine from the overlying clay aquitard.

Aquifer Parameters

Analysis of the particle size distribution (PSD) has been undertaken on 28 lithological samples, collected from air-core drill samples. Analyses were undertaken by Soil Water Group in Perth, Western Australia (a recognised soil-science laboratory) and details are provided in Appendix 3. The samples represent the surficial aquifer, confining clay and basal sand aquifer. The PSDs have been used to estimate permeability, specific yield and porosity of these three hydraulic units. Methods described by Saxton and Rawls (2006) of the USDA, have been used to estimate hydraulic parameters from the PSD.

It has been determined that the estimates of hydraulic parameters for each of the three hydraulic units approximate a log-normal distribution (as is common for granular aquifers). The mean of the log-normal distribution has been adopted for use in estimating the Inferred Mineral Resource. The results are summarised in Table 3.

Hydrogeological Unit	Permeability (m/d)	Specific Yield (%)	Porosity (%)
Lower bound (-1 standard deviation)	0.1	10%	34%
Surficial (Adopted mean value)	**0.3**	**16%**	**39%**
Upper bound (+1 standard deviation)	0.8	24%	43%
Lower bound (-1 standard deviation)	0.02	4%	38%
Clay (Adopted mean value)	**0.04**	**6%**	**47%**
Upper bound (+1 standard deviation)	0.08	9%	58%
Lower bound (-1 standard deviation)	0.2	14%	38%
Basal Sand (Adopted mean value)	**0.8**	**23%**	**40%**
Upper bound (+1 standard deviation)	3.6	39%	42%
Published values from DoW studies in other palaeochannels (for comparison purposes)			
Surficial	*0.1 - 1*	*5% - 25%*	*n/a*
Clay	*0.001 - 0.01*	*2%*	*n/a*
Basal Sand	*1 - 10*	*20%*	*n/a*

Table 3: Adopted Aquifer Properties

- The upper surficial aquifer has moderate permeability and specific yield. The specific yield represents just under 50% of the total estimated porosity (i.e. 50% of the in-situ brine could be recoverable over time).

- The middle clay unit has very low permeability and specific yield (i.e. direct abstraction of brine from the clay will be difficult and very little of the brine volume contained within the pore space will be expected to drain over time). However, the clay unit would be expected to drain into underlying sand when this is depressurised by pumping. While the specific yield is low, it is somewhat higher than estimates by the Department of Water from other palaeochannels. This is due to the sand proportion within the sampled clay. Notwithstanding this, the specific yield indicates only some 15 % of the total brine contained within the pore space may be expected to drain over time. Moreover, the low permeability will not support direct abstraction.

- The basal sand unit has reasonable permeability and specific yield. The specific yield represents over 50% of the porosity, suggesting over half of the contained brine is potentially recoverable over time. For an average sand thickness of 25m, the transmissivity of this aquifer unit will be in the order of 25m^2/d. This is sufficient to sustain reasonable pumping volumes and allow depressurisation of the aquifer over a wide area, which will allow the drainage of the overlying clay.

Hydrogeochemistry and Brine Concentration

Comprehensive brine analyses of auger and drill holes have been completed and reported by the Company. The assays provided coverage across the entire LWPP area and throughout the geological sequence including the basal sand. The location of brine data points (hole collars) is shown in Figures 1 & 2.

QA/QC procedures have been incorporated into the assay protocol. These involved the collection of duplicate and triplicate samples and the use of defined concentration standards for analysis by different laboratories and also by differing laboratory methods. Observations made from the QA/QC of previously released results include:

- There is less than a 15% correlation error between different laboratory methods with respect to measured brine concentrations;
- There is up to a 10% correlation error between laboratories when the same method is used. It should be noted that this error occurred with samples of different ages and suggests there is some evolution of the brine chemistry while the sample is stored.

Hydrogeological Unit	Samples and Assays		Potassium (mg/L)			Sulphate (mg/L)			SOP (mg/L)	
	Total Assays	Used in Inferred Resource	Median	Average	Std Deviation	Median	Average	Std Deviation	Median	Average
Surficial Aquifer	89	65	4540	4414	1192	22000	21644	6117	10124	9843
Confining Clay	390	263	3920	3635	1385	22500	21373	7105	8742	8105
Basal Sand	16	16	3740	3371	1009	22100	21606	8319	8340	7518
Total	**495**	**344**								

495 assays were considered, 151 were QA/QC assays, 344 were used in Inferred Resource

Average values are simply arithmetic means of all samples provided to summarise numerous assay results; they do not represent a weighted mean average.

Table 4. Summary of potassium, sulphate and SOP concentrations, all samples

It should be noted that the brine samples have been collected under steady-state conditions. They do not represent the brine quality that will result from mixing between aquifers and periodic surface water inputs that will occur under operational (pumping) conditions. As such, the correlation errors are not considered to materially affect the Inferred Resource calculation. However, to ensure conservatism, where multiple assays are available on a specific sample, the lowest measured potassium concentration has been adopted in calculating the Inferred Resource.

Salient aspects of the overall results are summarised in Table 4.

It should be noted that the average values in Table 4 are simply arithmetic means from all samples. The average values are not weighted to reflect the relative proportion of one sample compared to another (i.e. a sample over a 1m interval and a sample over a 10m interval have the same weighting in the arithmetic mean). This means they do not necessarily reflect the average brine concentration within each formation. However, in modelling the Inferred Mineral Resource, the weighted mean average concentrations are derived; these take account of the relative proportions of high and lower concentrations and provide averages that are representative of the overall aquifer.

Hydrogeological Model

A conceptual hydrogeological model is summarised as follows:

i) The hydrogeological units that may support brine-abstraction by direct pumping; and
ii) The interaction of those units with the clay aquitard. In particular, the importance of the underlying basal sands to facilitate depressurisation and under drainage of the clays.

The hydrogeological model is based on the drilling programs and the seismic surveys previously described. The continuous and open extent of the palaeochannel beyond the area of Inferred Mineral Resource is based on Geoscience Australia's palaeochannel mapping and from detailed topographical analysis. This is consistent with the LWPP lying within a major regional palaeodrainage.

Inferred resource

Basis of Inferred Resource

The calculation of a SOP Inferred Resource for the LWPP is outlined below. The area covered by the Inferred Resource model is shown in Figure 1. The Inferred Resource itself is restricted to the palaeochannel sediments within this modelled area. The resource spans ~52km of palaeochannel thalweg; the resource is up to 3000m wide over the lake surface and 400m in the basal sand aquifer and has a thickness varying from ~130m to 170m.

The Inferred Resource is based on the development of a conceptual hydrogeological model underpinned by the data described above. Salient points are as follows.

There are three hydrogeological units:

i) a surficial aquifer comprising mixed sand, clay, precipitates and evaporites; the unit has sufficient permeability to allow direct abstraction of brine from a combination of bores and trenches. Estimated permeability is 0.3m/d (which likely represents a transmissivity of ~20m^2/d); adopted specific yield is 16%;

ii) an extensive confining clay with some sandy horizons and minor sand interbeds. The sand interbeds result in estimates of specific yield that are at the higher end of the range expected for clay. However, permeability is low and no direct abstraction will be possible from this unit. Estimated permeability is 0.04m/d (which represents a negligible transmissivity); adopted specific yield is 6%;

iii) a basal coarse sand deposited in the thalweg of a major palaeodrainage system with both high permeability and specific yield. Additionally, the potential of the sand to act as an underdrain for the overlying clay will allow brine abstraction from the clay also. Estimated permeability is ~1m/d (which likely represents a transmissivity of ~25m^2/d); adopted specific yield is 23%.

Estimates of permeability and specific yield (i.e. drainable storage) for the key hydrogeological units are based on GPH laboratory analysis of grain-size, corroborated with data presented in the Northern Goldfields Hydrogeological Study (Department of Water (ex Water and Rivers Commission) 1999). The estimates followed a log-normal distribution and the mean of these distributions has been adopted for the Inferred Resource.

The palaeochannel extent has been defined by extensive passive seismic surveys covering the entire area for which the Inferred Resource has been estimated, supplemented with detailed topographic analysis and from Geoscience Australia's regional mapping of the Tertiary palaeodrainage system.

Inferred Resource Estimate

Table 1 above summarises the Inferred Resource for the LWPP.

Hydrogeological Unit	Volume of Aquifer (Mm^3)	Porosity	In-situ Brine Volume (Mm^3)	K Concentration (mg/L)	SOP Grade (mg/L)	SOP Resource (Mt)
Western High Grade Zone						
Surficial Aquifer	5,207	39%	2031	3842	8568	17.4
Clay Aquitard	4,947	47%	2325	4,244	9464	22.0
Basal Sand Aquifer	222	40%	89	4,539	10121	0.9
Total *(Mm^3/Mt)*	**10,376**		**4445**	**4049**	**9028**	**40**
Eastern Zone						
Surficial Aquifer	3,435	39%	1340	3428	7644	10.2
Clay Aquitard	2,833	47%	1332	3329	7423	9.9
Basal Sand Aquifer	231	40%	92	3330	7426	0.7
Total *(Mm^3/Mt)*	**6,499**		**2764**	**3381**	**7540**	**21**
Southern Zone						
Surficial Aquifer	1,296	39%	505	2742	6115	3.1
Clay Aquitard	1,901	47%	893	2620	5842	5.2
Basal Sand Aquifer	82	40%	33	2871	6401	0.2
Total *(Mm^3/Mt)*	**3,279**		**1432**	**2674**	**5963**	**9**
Total						
Surficial Aquifer	9,937	39%	3876	3555	7929	30.7
Clay Aquitard	9,682	47%	4550	3657	8155	37.1
Basal Sand Aquifer	535	40%	214	3761	8387	1.8
Total *(Mm^3/Mt)*	**20,154**		**8640**	**3610**	**8050**	**70**
Note: This does not constitute a Resource as per JORC (or NI43-101). It is simply the estimate of total in-situ brine for comparison with other published reports.						

Table 5. Goldphyre Resources Lake Wells Potash Project – Estimated Volume of In-Situ Brine

The Inferred Resource is 18.4 million tonnes of SOP grading 8,050 mg/l (8.05kg/m^3). The resource comprises three zones:

- The western high grade zone consisting of 10.5Mt with a weighted mean average K grade of 4,049 mg/L (9,029 mg/L of SOP)
- The eastern zone consisting of 5.9Mt with a weighted mean average K grade of 3,381 mg/L (7,540 mg/L of SOP), and
- The southern zone consisting of 2.1Mt with a weighted mean average K grade of 2,674 mg/L (5,963 mg/L of SOP).

Mean-weighted average potassium (K) grade across the entire resource is 3,610 mg/L (8.05 kg/m^3 of SOP). The Inferred Mineral Resource is a static estimate; it represents the volume of potentially recoverable brine that is contained within the defined aquifer. It takes no account of modifying factors such as the design of any bore field (or other pumping scheme), which will affect both the proportion of the Inferred Mineral Resource that is ultimately recovered and changes in grade associated with mixing between each aquifer unit, which will occur once pumping starts.

Table 5 below provides an estimate of the volume of brine in-situ. This estimate is based on the porosity of each hydrogeological unit and as such, much of this in-situ brine will not be recoverable. This estimate is provided only to allow a comparison with some other industry reports. It is estimated that 70 million tonnes of potash brine in-situ is present at the LWPP.

The Lake Wells Potash Project

Drilling programs conducted at Lake Wells in July 2015[iv] and March and May 2016[iii] identified high-grade potash mineralisation both beneath the lake and the low dune areas surrounding the lake. That drilling program generated wide intercepts of high-grade potash to depths of more than 170m down-hole.

Passive seismic survey programs have been conducted at the Project[v] [vi]. This data permitted the clear targeting of drill holes into the deepest parts of the palaeochannel.

The Company plans to install test production bores, test-pump those bores, and build and commission field evaporation trials through the next two to four quarters.

Contact

Matt Shackleton	**Media:**
Executive Chairman	Paul Armstrong
e: m.shackleton@goldphyre.com.au	Read Corporate
m: +61 (0)438 319 841	**t:** +61 (8) 9388 1474

Competent Person's Statement

The information in the announcement that relates to Exploration Targets and Mineral Resources is based on information that was compiled by Mr Jeffery Lennox Jolly. Mr Jolly is a principal hydrogeologist with AQ2, a firm that provides consulting services to the Company. Neither Mr Jolly nor AQ2 own either directly or indirectly any securities in the issued capital of the Company. Mr Jolly has over 30 years of international experience. He is a member of the AusIMM and the International Association of Hydrogeologists. Mr Jolly has experience in the assessment and development of palaeochannel groundwater resources, including the development of water supplies in hypersaline palaeochannels in Western Australia. His experience and expertise is such that *he qualifies as a Competent Person as defined in the 2012 edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore reserves". Mr Jolly consents to the inclusion in this report on the matters based on his information in the form and context in which it appears.*

The information in this report that relates to Exploration results is based on information compiled by Mr Brenton Siggs. Mr Siggs is the principal geologist of Reefus Geology Services, a firm that provides geological consulting services to the Company. Mr Siggs is a director and shareholder of Goldphyre WA Pty Ltd, a company that holds ordinary shares and options in the capital of Goldphyre Resources Limited (Goldphyre Resources Limited, Annual Report 2015). Mr Siggs is a Non-Executive Director of Goldphyre Resources Limited. He is a member of the Australasian Institute of Geoscientists. Mr Siggs has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity currently being undertaken 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 Siggs consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements Disclaimer

This announcement contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

Appendix 1 Collar table

Hole	Hole Type	Northing (m)	Easting (m)	RL (m)	Dip	Azimuth	Hole Depth (m)
PLAC001	AC	6984310	502503	447	-90	0	89
PLAC002	AC	6986265	503667	451	-90	0	125
PLAC003	AC	6987290	504936	448	-90	0	27
PLAC004	AC	6989581	502865	448	-90	0	69
PLAC005	AC	6988482	500271	449	-90	0	30
PLAC006	AC	6989304	501464	448	-90	0	21
PLAC007	AC	6987185	502280	450	-90	0	105
PLAC008	AC	6988271	503135	448	-90	0	62
PLAC009	AC	6985447	502287	449	-90	0	141
PLAC010	AC	6984202	501394	446	-90	0	31
PLAC011	AC	6985628	500540	448	-90	0	138
PLAC012	AC	6987435	500480	446	-90	0	27
PLAC013	AC	6987782	499069	451	-90	0	18
PLAC014	AC	6985903	499000	446	-90	0	84
PLAC015	AC	6983905	503707	454	-90	0	141
PLAC016	AC	6983910	504600	448	-90	0	107
PLAC017	AC	6982990	501984	447	-90	0	12
PLAC018	AC	6985429	501345	449	-90	0	156
PLAC019	AC	6983282	520417	452	-90	0	149
PLAC020	AC	6982466	523824	446	-90	0	137
PLAC021	AC	6983435	529841	450	-90	0	101
PLAC022	AC	6983325	509759	456	-90	0	29
PLAC023	AC	6983556	504517	452	-90	0	131
PLAC024	AC	6989993	494462	449	-90	0	10
PLAC025	AC	6986621	497503	455	-90	0	166
PLAC026	AC	6983714	492431	449	-90	0	59
PLAC027	AC	6976879	494504	448	-90	0	101.9
PLWDD001	MR/DDH	6985400	501330	449	-90	0	163.3
PLWDD002	MR	6986505	494440	453	-90	0	170.3
PLWDD003	MR	6983715	492410	449	-90	0	174
PLWDD004	MR	6986592	497518	452	-90	0	59.1
PLWDD005	MR	6986645	497517	451	-90	0	167.7

NOTE: Co-ordinates MGA94 Zone 51

Appendix 2 Auger table

Hole ID	Northing (m)	Easting (m)	RL (m)	Depth to WT (m)	Hole depth (m)
LPA001	6983400	501320	446	0.40	1.10
LPA002	6986332	503446	449	1.00	1.50
LPA003	6984140	502251	448	0.70	1.20
LPA004	6984121	502986	444	0.50	1.50
LPA005	6985629	502007	447	0.50	1.20
LPA006	6987280	501737	446	0.50	0.50
LPA007	6988742	500071	450	0.50	0.80
LPA008	6990754	503773	449	0.53	0.90
LPA009	6985655	501258	454	0.40	1.20
LPA010	6985001	500898	455	0.40	1.20
LPA011	6984515	499330	455	0.40	1.20
LPA012	6986106	500198	461	0.55	1.30
LPA013	6985172	498807	457	0.80	1.20
LPA014	6986315	499328	462	0.40	1.00
LPA015	6987443	500588	460	0.35	1.20
LPA016	6988567	498839	465	0.50	1.20
LPA017	6983498	502499	461	0.40	1.40
LPA018	6983252	501700	461	0.30	1.00

NOTE: Co-ordinates MGA94 Zone 51

Appendix 3 PSD table

SAMPLE_ID	HOLE_ID	Northing	Easting	FROM	TO	Hydro Unit	COMMENTS	Particle Size Analysis Sand	Silt	Clay	Gravel	Major Lith	Derived Aquifer Parameters Permeability (m/d)	Sy (%)	Porosity (%)
LWPS1014	PLAC019	6983282	520417	60	70	Basal Sand		29%	37%	33%	1%	Sand, Silt and Clay	0.05	0.09	0.43
LWPS1026	PLAC020	6982466	523824	124	126	Basal Sand		68%	12%	11%	9%	Sand	0.81	0.24	0.38
LWPS1018	PLAC019	6983282	520417	136	138	Basal Sand		73%	9%	8%	10%	Sand	1.20	0.27	0.39
LWPS1017	PLAC019	6983282	520417	130	131	Basal Sand		86%	7%	6%	2%	Sand	2.08	0.32	0.40
LWPS1009	PLAC018	6985429	501345	152	156	Basal Sand		88%	6%	5%	1%	Sand	2.42	0.34	0.41
LWPSD1508	PLAC011	6985628	500540	105	108	Clay	grey brown white clay	14%	42%	43%	1%	Sandy Clay	0.04	0.04	0.43
LWPSD1504	PLAC002	6986265	503667	110	112	Clay	lt brown green clay	10%	28%	62%	0%	Clay	0.04	0.04	0.51
LWSF002	PLAC009	6985447	502287	38	39	Clay	puggy lacustrine clay	13%	48%	39%	0%	Clay	0.005	0.04	0.41
LWPSD1507	PLAC011	6985628	500540	78	80	Clay	clay and fg sand	6%	60%	34%	0%	Clayey Silt	0.04	0.04	0.41
LWPSD1503	PLAC002	6986265	503667	88	90	Clay	lacustrine clay	6%	26%	68%	0%	Clay	0.05	0.05	0.54
LWSF004	PLAC009	6985447	502287	139	140	Clay	dk grey puggy lacustrine clay	20%	58%	22%	0%	Clay	0.02	0.06	0.35
LWPSD1502	PLAC002	6986265	503667	58	60	Clay	lacustrine clay/min silt	14%	84%	1%	1%	Silt	0.06	0.06	0.29
LWPSD1501	PLAC002	6986265	503667	28	30	Clay	laterite/mottled clay/grit zone	21%	32%	44%	3%	Clay	0.07	0.07	0.47
LWPSD1506	PLAC011	6985628	500540	29	32	Clay	clay and fg sand component	13%	42%	44%	1%	Clay	0.08	0.08	0.48
LWPS1006	PLAC018	6985429	501345	61	65	Clay		5%	35%	61%	0%	Silty Clay	0.04	0.09	0.56
LWPS1015	PLAC019	6983282	520417	95	105	Clay		1%	32%	66%	0%	Silty Clay	0.05	0.10	0.59
LWPS1023	PLAC020	6982466	523824	90	100	Clay		2%	29%	69%	0%	Silty Clay	0.05	0.10	0.60
LWPS1007	PLAC018	6985429	501345	97	100	Clay		1%	32%	67%	0%	Silty Clay	0.05	0.10	0.59
LWPSD1505	PLAC011	6985628	500540	3	12	Surficial	Evap and clay	14%	37%	49%	0%	Clay	0.08	0.08	0.50
LWSF005	PLAC001	6984310	502503	26	27	Surficial	laterite/mottled clay/grit zone	17%	48%	26%	8%	Laterite	0.06	0.10	0.43
LWSF001	PLAC009	6985447	502287	14	15	Surficial	clay/sand	36%	40%	20%	4%	Sandy Clay	0.16	0.13	0.40
LWSF009	PLAC004	6989581	502865	47	49	Surficial	medium grained granitic saprolite with lithic fragments	29%	49%	9%	13%	Saprolite	0.26	0.15	0.38
LWSF011	PLAC012	6987435	500480	16	17	Surficial	saprolitic mafic rock	26%	59%	1%	13%	Saprolite	0.57	0.16	0.36
LWSF006	PLAC001	6985447	502287	35	36	Surficial	pisolitic laterite minor silcrete	32%	14%	7%	47%	Laterite with silcrete	0.20	0.16	0.37
LWSF008	PLAC004	6989581	502865	10	12	Surficial	friable silcrete/mottled zone	29%	9%	1%	61%	Silcrete	0.30	0.17	0.36
LWSF003	PLAC009	6985447	502287	49	50	Surficial	sand and minor clay - interbed within clay	68%	21%	10%	1%	Sandy Clay	0.50	0.20	0.32
LWSF010	PLAC004	6989581	502865	66	68	Surficial	Transitional medium grained granite saprock	48%	0%	1%	52%	Saprock	0.68	0.23	0.37
LWPS1004	PLAC018	6985429	501345	47	49	Surficial		84%	5%	6%	5%	Sand	1.93	0.32	0.40

NOTE: Co-ordinates MGA94 Zone 51

Appendix 4 Reporting of Exploration Results – JORC (2012) Requirements

Section 1: Sampling Techniques and Data

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. '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.*	• Brine sampling was completed via Mud Rotary-Diamond (MR-DDH) cased with PVC and Air core (AC) drilling technique. Auger holes completed using handheld (unpowered) auger. • AC Drilling - Groundwater (brine) and selective mineral (lithological) samples collected. Brine sample recovery procedure included collecting brine sample through the cyclone in a clean 9l bucket at the start of drilling each rod. Where possible, flow rate data was logged via air lifting using a stop watch and 9l bucket beneath the cyclone. Not every rod may produce a brine sample depending upon formation characteristics. Flow rate information collected using compressed air drill technique is considered indicative. Regolith samples from AC drilling were collected from the cyclone and laid out in rows of 10 or 20 for geological logging and (where applicable) mineral sampling. Particle size distribution (PSD) samples (28 lithological samples, weight 1-2 kg) were collected over representative sample intervals representing the surficial aquifer, confining clay and basal sand aquifer and analysed at Soilwater Group (Perth). The PSD samples have been used to estimate permeability, specific yield and porosity. 28 PSD sample results are summarised in the accompanying report and Appendix 3. Mud Rotary Drilling - 50mm PVC cased Mud Rotary drill holes were airlifted for 1-2 hours using a 180cfm trailer-mounted compressor to remove remnant drilling fluids introduced at time of drilling. A pressure transducer was then placed in the borehole to measure water levels, while a small 40mm submersible pump pumped brine to the surface. After 30 minutes, the brine was sampled and the transducer data downloaded to allow estimation of hydraulic parameters. Auger holes- brine

Criteria	JORC Code Explanation	Commentary
		samples collected via bailer or by hand with 250 or 500ml bottles. • Selective triple tube PQ core was logged on site, sealed in plastic and transported in plastic trays to Perth office for further processing.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Mud Rotary-Diamond Drilling (MR-DDH) (5 holes, Appendix 1) was completed by Terra Drilling, Kalgoorlie, using a Hanjin Powerstar 7000 track-mounted diamond rig. Selective PQ Triple tube Core (diameter 85mm, no orientation) used to penetrate hard regolith zones and basement was collected with core recovery generally over 90%. • 2016 Air core (AC) drilling using Schramm 685 with 125mm vacuum blade bit (10 holes, Appendix 1) was completed by Austral Drilling, Perth. 2015 Air core (AC) drilling completed by Raglan Drilling, Kalgoorlie. • All holes vertical.
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.*	• See Sampling Techniques. • AC Drilling - Drilling with care (eg. clearing hole at start of rod, regular cyclone cleaning) but majority of lithological samples moist/wet due to primary aim of targeting brine samples. Mud Rotary Drilling – Lithological sample recovery and quality was generally low due to poor development of wall cake and mixing with drill cuttings from entire hole column. • Sample recovery/grade relationship not applicable to groundwater brine sampling. Brine samples collected in 80ml or 250 ml bottles.
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.*	• AC Drilling - Qualitative lithological logging completed by inspection of washed Air–core drill cuttings at time of drilling with end-of-hole (EOH) samples and 1m chip samples collected in plastic chip trays for future reference. Flow rate data was collected where possible along with Magnetic Susceptibility data (Fugro RT-1 unit). Mud Rotary-Diamond Core drilling - Triple tube PQ core lithologically logged and photographed. Logging is qualitative in nature.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• PQ Triple tube core awaiting core cutting for processing. • AC Drilling - Brine water samples were collected with a clean bucket from the rig cyclone. 80ml and 250ml plastic sterile sample bottles were used to collect sample. At the end of each rod, air turned on and

Criteria	JORC Code Explanation	Commentary
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	brine (if present) flows through cyclone and sample collected after initial discharge flow of brine. Mud Rotary Drilling – Brine samples collected from small submersible pump in 50mm PVC cased holes after sufficient airlifting to remove traces of drilling fluids. • Reference brine solution provided by independent laboratory (Intertek Genalysis, Perth) used for QA/QC analysis with a sample ratio of approx. 1:10. Duplicate samples (approx. 1:20) were also collected for QA/QC analysis and despatched to laboratory for brine analysis. Archive brine sample collected for each laboratory sample. A small sample batch (~10%) despatched to umpire lab for comparison purposes and these results pending. • Once collected, brine samples were kept in cool to cold, dark storage and delivered to laboratory within 7 days of field collection. Major cations were analysed using either ICP-AES or ICP-MS techniques. Analysis of Cations in brine solution by Mohr Titration. Sulphate was determined by either: ICP-AES Determination or dissolved sulphate in a 0.45um filtered sample with sulphate ions converted to a barium sulphate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. Specific Gravity (SG) calculated using Pycnometric method. Total Dissolved Solids (TDS) calculated by Gravimetric method. • Sample size (80 and 250 ml plastic bottles) appropriate for brine being sampled.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• The samples were collected for major cation (Ca, K, Na, Mg) and anions (Cl, sulphate), alkalinity, Specific Gravity, Total Dissolved Solids (TDS) and selective multi-element (dissolved metals) analysis. Drill samples (2016) were completed at Bureau Veritas Laboratory, Perth. These samples were analysed with Lab Codes GC006, GC026, GC033, GC004, and SO101 and SO102 methods. Reference brine solution samples dispatched to laboratory reported an average error of <10%. Drill samples (2015) were assayed at ALS Laborotary (Perth) with Lab Codes ED093F, ED041G, ED045G, EA050, ED037-P,EG020A-F. Duplicate and reference brine samples were submitted to MPL Laboratory (Perth) and

Criteria	JORC Code Explanation	Commentary
		ALS Metallurgy Laboratory (Perth). • Potash brine results calculated with primary potassium (K) values and K_2SO_4 equivalent. No upper and lower cuts applied. For multi-element suite - (Bureau Veritas Lab Code SO101 and SO102) elements included (but not limited to): Al, As, Cr, Co, Fe, Pb, Ni, U, Th, Zn, V). No anomalous or significant multi-element results recorded in brine samples. • Quality control process and internal laboratory checks demonstrate acceptable levels of accuracy. • Further Data QA/QC checks undertaken include: o Database QA/QC reporting including box and whisker plots o Primary laboratory duplicate comparison and interlaboratory duplicate comparison o Charge balance check o Ionic ratio analysis • These checks demonstrate acceptable levels of accuracy and consistency in the dataset.
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.*	• QA/QC procedures included reference solution and duplicate samples collected and analysed at both the primary and independent umpire laboratory to evaluate analytical consistency. Internal laboratory standards and instrument calibration are completed as a matter of course. • Sample data was captured in the field and digital data entry completed both in the field and in the Company's Perth office. All drill and sample data was then loaded into the Company's DATASHED database and validation checks completed to ensure data accuracy. Analytical results as csv and pdf files were received from the laboratory.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drill collars were surveyed by handheld Garmin 60 GPS with horizontal accuracy (Easting and Northing values) of +-5m. • Grid System – MGA94 Zone 51. • Topographic elevation using published GSWA geological maps and hand held GPS with Z range +-15m suitable for relatively flat salt lake/dune terrain.
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.*	• Hole spacing on approximate 1-6 km drill pattern targeted upper and basal sand paleochannel zones with 3 - 6m sample intervals (where possible) across the targeted salt lake system and meets SEG and Bench mark standards for Inferred Brine Resource classification (Houston,

Criteria	JORC Code Explanation	Commentary
		Butcher, Ehren, Evans, Godfrey (2012) The Evaluation of Brine Prospects and the Requirement for Modification to Filing Standards. Economic Geology v106, pp1225-1239). The data spacing is considered sufficient to establish the degree of geological and grade continuity appropriate for mineral resource estimation procedures. • Samples taken from intervals downhole are considered indicative due to groundwater seepage below the static water table level (SWL) and it is difficult to estimate the degree of down-hole brine 'mixing' using the Air-core drilling technique. Brine samples collected at end of rod (every 3 or 6m) where possible, are to some extent, naturally composited due to the nature of the sample medium and compressed air drill technique.
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.*	• Vertical drill holes targeted the deepest sections of the palaeovalley system within interpreted flat lying transported sedimentary profile and weathered-transitional basement rocks. • Vertical drill orientation not considered to have introduced any sampling bias with regard to sampling relatively flat lying regolith units.
Sample security	• *The measures taken to ensure sample security.*	• Samples collected from the field airfreighted to Perth laboratories with sealed eskies or delivered by Company personnel to laboratory direct.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Data reviews are summarised under QA/QC of data above.

Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The LAKE WELLS POTASH PROJECT, located 140 km northeast of Laverton, Western Australia consists of tenements: E38/1903, E38/2113, E38/2114, E38/3021, E38/3039, E38/2742 and E38/2744. All tenements held 100% by Goldphyre Resources Limited (GPH) except E38/2742 and E38/2744 held by Lake Wells Exploration Pty. Ltd. (LWE). GPH has entered into a Sale and Split Commodity Agreement (dated on or about 11th December, 2015) with LWE. A net smelter royalty of 2% applies to tenements E38/1903, E38/2114 and E38/2113. All tenements are in good standing. There is no Native Title Claim registered in respect of the project tenure.

Criteria	JORC Code Explanation	Commentary
		Accordingly, there is no requirement for a Regional Standard Heritage Agreement to be signed. • At time of writing, the tenements have expiry dates ranging between 1/5/2017 and 9/8/2020.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous reconnaissance AC and Goldphyre AC/RC drilling has been completed in the Lake Wells area. Companies that have completed previous exploration in the region include WMC Ltd, Gold Partners Ltd, Kilkenny Gold NL, Anglogold Ashanti Australia Ltd, Croesus Mining NL and Terra Gold Mining Ltd.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Targets include: Brine hosted potash mineralisation associated with the Lake Wells playa lake system.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* *•easting and northing of the drill hole collar* *•elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *•dip and azimuth of the hole* *•down hole length and interception depth* *•hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Air-core drilling, auger holes and Mud Rotary-Diamond drill data completed by Goldphyre Resources Limited included in report with collar information for drill holes included in Appendix 1-2.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• All analytical results previously reported and referenced in accompanying report with no minimum and/or maximum grade truncations applied. • Average Sulphate of Potash (SOP) values were previously reported from brine samples collected in a particular interval although several drill holes returned sample intervals in which groundwater was present but insufficient brine sample was available for sampling and analysis. • No metal equivalent values or formulas used.
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. 'down hole length, true width not known').*	• The brine deposit is understood to be essentially a flat resource hosted within a sedimentary aquifer and the underlying weathered basement. Vertical drill hole intercepts are interpreted to represent the true thickness of the deposit.
Diagrams	• *Appropriate maps and sections (with scales) and*	• Appropriate summary diagrams with Scale

Criteria	JORC Code Explanation	Commentary
	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.	and North Point shown along with cross section figures are included in the accompanying report.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All previously reported K, SO4, and Mg brine results for the samples collected are referenced in the accompanying report.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• AC drilling in 2015 provided encouragement for further potash brine exploration. Geophysical data (TMI, FVD, Gravity and passive seismic survey) processing along with extensive previous explorers' drill data has contributed further to the understanding of the salt lake system and palaeotopography on the project area.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Based on results returned **and *Other Substantive Exploration data*** summarised above, the design of follow up drilling program(s) (including test bore drilling and pump testing) are under preparation. • Extension and infill target areas around current drilling as shown in diagram(s) included in the accompanying report will be assessed.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code Explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	• Digital data loaded into DATASHED database then extracted and checked for errors to ensure drilling, lithology and assay data are correct. • Dropdown menus used for digital data capture. • Data points plotted in ARCGIS to check location. • Database extracts for resource modelling work and GIS compilation work checked for accuracy.
Site Visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	• Competent Person for information regarding Exploration Results and consultant hydrogeologist conducted in-field management and supervision for exploration drill programs.
Geological Interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and*	• Confidence in the geological interpretation is strong as the brine resource is contained within extensive, relatively flat lying, Tertiary age sediments infilling a meandering palaeovalley system interpreted from passive seismic surveys and drill data and identified on a regional scale by adjacent projects and GSA research. • The geological interpretation is supported

Criteria	JORC Code Explanation	Commentary
	controlling Mineral Resource estimation. *The factors affecting continuity both of grade and geology.*	by detailed geological logging of drill chips and seismic survey. • No alternative geological interpretations have been generated. • Geological interpretation based on the logging of the various regolith units in guiding and controlling Mineral Resource estimation. • Sedimentology processes affect form, thickness and extent of geological units. Hydrological factors may influence brine concentration and continuity.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Inferred Mineral Resource has been calculated for a portion of the Well Palaeochannel/Lake Wells aquifer within tenements owned or controlled by GPH. • The resource covers ~52km length of paleochannel thalweg. • The resource has been modelled for the entire Tertiary valley sequence from the water level surface (within 1 m of the ground surface) to 130 mbgl in the east and 170 mbgl in the west and 145 mbgl in the south. The resource is ~3km wide at the surface and 0.4km wide at depth within the incised palaeochannel.

Criteria	JORC Code Explanation	Commentary
Estimation and Modelling Techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• Modelling has been undertaken with ARANZ Leapfrog Hydro modelling software. The model provides an estimate of the potentially drainable brine within the Lake Wells Potash Project (LWPP). The model is a static model and takes no account of pumping/brine recovery (other than by the application of specific yield rather than porosity). • The model comprises 4 geological units – basement, basal sand, confining clay and a surficial mixed aquifer. All lithologies encountered during drilling were assigned to one of these four hydrogeological groups. • Geological surfaces were modelled with priority given to drill-hole data and secondary focus on seismic interpretation. Key surfaces, in particular the base of the palaeochannel thalweg, were extended assuming constant gradients between control points (this is considered reasonable given the hydrological origin of the surface i.e. the base of a river generally has a constant gradient). • Surfaces were modelled with a spatial resolution of 50m to 75m. Interpolations were undertaken with Leapfrog's Linear Interpolation Function. • The model was validated by comparing total sediment volumes with those estimated from the interpreted geophysical surface and with simplified estimates from large scale analytical block models. The model was also validated by comparing cross sections with drill-hole intersections.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Not Applicable to estimated tonnages for brine resources
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• No cut-off grades applied
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Potential mining process or brine abstraction process is envisaged to involve pumping brine via a series of water bores and trenches. • New field and laboratory test work studies will commence to further test the efficiency and viability of extraction method options. • Preliminary assessment based on the permeability values described in the accompanying report, indicate groundwater abstraction from throughout the aquifer sequence is feasible. In particular, the basal sand will be depressurised during pumping and induce leakage (under-draining) from the overlying clay. This has been the

Criteria	JORC Code Explanation	Commentary
		general operating experience in numerous palaeochannel bore fields in the region.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Brine analysis work at the LWPP has demonstrated a potassium-magnesium-sulphate elevated brine with very low calcium and carbonate content. National and international scientific reference material, open file and ASX report data of past and recent brine Sulphate of Potash (SOP) projects provide support for the brine type at the LWPP to be amenable to SOP mineral recovery via conventional evaporation processes employed on similar operations elsewhere in the world. • Hydrometallurgical testing on the Lake Wells brines is planned for the September quarter, 2016.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• Assumptions made regarding Environmental factors may include: Ground disturbance from the installation of bores, trenches, evaporation ponds and salt tailing facilities and extraction with possible reduction in hypersaline and fresh groundwater aquifers. • The brine evaporation process will result in a salt (sodium chloride residue).
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density determination is not relevant for brine resource calculations as the porosity, or more applicably, the drainable porosity or specific yield, of the aquifer material is relevant for brine resource calculations. The volume of the sediments containing the brine and the specific yield combine for brine resource calculation.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Exploration data including brine analysis, drill data, geological setting and seismic surveys provide confidence in classifying the Mineral Resource as Inferred. • Appropriate account for brine resource reporting has been taken of all relevant factors. • The Classification result appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral*	• The modelling and Inferred Mineral

Criteria	JORC Code Explanation	Commentary
	Resource estimates.	Resource estimate has been subject to internal peer-review only.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The Inferred Mineral Resource is based on average specific yield values for the major hydrogeological units and the interpolated distribution of potassium brine within those units. The average specific yields are derived from 28 samples and the results fall within the ranges of other published work from the region (Department of Water). It is not possible to provide a quantified level of confidence. In particular, this is because the Inferred Resource is a static estimate; it represents the volume of potentially recoverable brine that is contained within the defined aquifer. It takes no account of modifying factors such as the design of any bore field (or other pumping scheme), which will affect both the proportion of the Inferred Resource that is ultimately recovered and changes in grade associated with mixing between each aquifer unit, which will occur once pumping starts. Such uncertainties are inherent in groundwater modelling where factors vary in both space and time. Given these uncertainties inherent in the ultimate concentration of produced brine, the level of confidence in the modelling to date is considered satisfactory.

[i] *Rounding may affect sub-totals and totals in all tables*

ii Beard JS, 2002, Palaeogeography and drainage evolution in the Gibson and Great Victoria Deserts , Western Australia, Journal of the Royal Society of Western Australia, Vol 85, pp 17-29

iii Refer to ASX announcements 23 May 2016 'High grade assays point to significant Maiden Resource', and 31 May 2016 'Final assays highlight quality and scope of SOP Project'. These announcements contain the relevant statements, data and consents referred to in this announcement. Apart from that which is disclosed in this document, Goldphyre Resources Limited, its directors, officers and agents, are not aware of any new information that materially affects the information contained in the 23 May 2016 and 31 May 2016 announcements.

iv Refer to ASX announcement 26 August 2015 'Lake Wells Potash Drilling Results'. That announcement contains the relevant statements, data and consents referred to in this announcement. Apart from that which is disclosed in this document, and in the ASX announcement 15 October 2015 'Quarterly Activities Report', Goldphyre Resources Limited, its directors, officers and agents, are not aware of any new information that materially affects the information contained in the 26 August 2015 announcement.

v Refer to ASX announcement 15 December 2015 'Seismic Survey Defines Extensive, Deep Palaeovalley'. That announcement contains the relevant statements, data and consents referred to in this announcement. Apart from that which is disclosed in this document, Goldphyre Resources Limited, its directors, officers and agents, are not aware of any new information that materially affects the information contained in the 15 December 2015 announcement.

vi Refer to ASX announcement 8 February 2016 'Second Seismic Survey Doubles Size of Deep Palaeovalley'. That announcement contains the relevant statements, data and consents referred to in this announcement. Apart from that which is disclosed in this document, Goldphyre Resources Limited, its directors, officers and agents, are not aware of any new information that materially affects the information contained in the 8 February 2016 announcement.