8 March 2016

# GOLDPHYRE OUTLINES MAJOR SULPHATE OF POTASH EXPLORATION TARGET AT LAKE WELLS

***Outstanding result underpins Goldphyre's aim to produce 75,000 - 100,000tpa through sub-$100m CAPEX development***

## HIGHLIGHTS

- **Total estimated volume of in-situ Sulphate of Potash (<u>for industry comparison purposes only</u>):**

**79 million tonnes – 123 million tonnes at grade range of 11,400 mg/L – 13,900 mg/L SOP**

- **Using specific yield, which reflects the amount of recoverable Sulphate of Potash, (in compliance with NI43-101, the only CRIRSCO reporting code to include a brine-standard):**

**6 million tonnes – 37 million tonnes at grade range of 8,900mg/L – 13,900 mg/L SOP**

- **Exploration Target has been modelled from surface to a maximum depth of 170 metres**
- **Exploration Target further underlines the Lake Wells Potash Project's potential to create substantial, early shareholder value on a simple, sub-$100m CAPEX development**

## NEXT STEPS

- **Further drilling and follow-up seismic program to commence this month**
- **Maiden Resource on track for H1 2016**

Goldphyre Resources Limited (ASX: GPH) ("Goldphyre", the "Company") is pleased to advise that its strategy to be a 75,000 - 100,000 tonne-a-year sulphate of potash producer is on track following the calculation of a substantial Exploration Target at its Lake Wells Potash Project in WA.

The estimate of total in-situ brine, which is based on extensive seismic and sampling programs, and over 5,000 metres of drill data, is 79 - 123 million tonnes of sulphate of potash.

However, Goldphyre considers that the Exploration Target based on specific yield of 6 - 37 million tonnes is more relevant. This figure represents the recoverable amount of potash, which in turn is the key figure for use in calculating potential production rates and economic returns. The potential quantity and grade of the Exploration Target is conceptual in nature. There has not yet been sufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Goldphyre Executive Chairman Matt Shackleton said the results provided more strong evidence that the Lake Wells Potash Project has the potential to host a substantial potash resource, which could create significant shareholder value.

"This Exploration Target provides further evidence that Lake Wells is on track to meet our objective of producing 75,000 - 100,000tpa of sulphate of potash over 15 years or more," Mr Shackleton said.

"This would underpin a substantial project given that sulphate of potash currently sells for ~A$1,000 a tonne at the farm gate.

"Our preliminary studies also show that Lake Wells can be developed at a low capital cost of less than $100 million and due to the simple process of extraction and evaporation, the Project is favourably positioned for a rapid low cost development, providing a direct path to positive cash flows and shareholder returns.

"These factors are consistent with our strategy of maximising economic returns, not merely establishing a major in-situ resource."

**Next Steps**

| | |
|---|---|
| March 2016 | Drilling for core recovery and to assess the basal sand layers at the bottom of the palaeochannel |
| June 2016 | Publication of a maiden resource estimate |
| Q2/Q3 2016 | Installation of test pumping bores, field evaporation trials |
| | Publication of resource upgrade |
| Q4 2016/Q1 2017 | Publication of measured resource estimate |

**Technical Discussion**

The conceptual hydrogeological model for the Lake Wells Potash Project ('LWPP') comprises three key units: a surficial aquifer with moderate potential; a clay aquitard with little potential for direct abstraction, but with potential for the long-term drainage of brine from this unit into the underlying aquifer; and a basal sand aquifer which regionally, has good aquifer and brine-storage potential. To date, the surficial aquifer and clay aquitard have been drilled. The presence of the basal sand is implied from both seismic survey and regional interpretation. The hydrogeological sequence is believed to be up to 170 m thick.

The hydrogeological sequence contains hyper-saline brine that is enriched with respect to potassium and sulphate. The quality of brine is broadly consistent over depth: potassium concentrations are in the order of 5,000 mg/L and sulphate concentrations are in the order of 22,000 mg/L. SOP yields could be approximately 11,400 mg/L of abstracted brine.

There are several key areas where the hydrogeological model remains conceptual (notably in relation to the presence of the basal sand and confidence in aquifer parameters). Based on current data, it is estimated that there is between 79 million tonnes and 123 million tonnes of in-situ SOP (i.e. based on total porosity, Table 2).

Using specific yield (to have regard for the future prospects of economic abstraction), the Exploration Target for the Lake Wells Potash Project ranges between 6 million tonnes and 37 million tonnes of SOP. Fieldwork is planned through Q2 CY2016 to address any data gaps and allow evaluation of a Mineral Resource. Table 1 below summarises the Exploration Target for the Lake Wells Potash Project. Figures 1 and 2 illustrate the area for which the Exploration Target has been calculated.

| Hydrogeological Unit | Volume of aquifer (cu.m) | Specific Yield | | Volume of Potentially Recoverable Brine | | K (mg/L) | | | Exploration Target - SOP (MT) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Min | Max | MCM | MCM | 1 Std Dev below Mean | Mean Value | 1 Std Dev above Mean | Min | Max |
| Surficial Aquifer Volume | 8,154,700,000 | 4% | 20% | 326.2 | 1630.9 | 3848 | 4968 | 6087 | 2.8 | 22.1 |
| Clay Volume | 11,626,000,000 | 2% | 6% | 232.5 | 697.6 | 4091 | 5,226 | 6361 | 2.1 | 9.9 |
| Sand Volume | 1,719,000,000 | 10% | 20% | 171.9 | 343.8 | 4091 | 5,226 | 6361 | 1.6 | 4.9 |
| **Total (MCM / MT)** | **21,500** | | | **731** | **2672** | | | | **6** | **37** |

*Exploration Target minimum based on: minimum specific yield and K concentrations 1 standard deviation less than the mean value.*
*Exploration Target maximum based on: maximum specific yield and K concentrations 1 standard deviation greater than mean value.*

*Table 1: Goldphyre Resource's Lake Wells Potash Project: Exploration Target*

| Hydrogeological Unit | Volume of aquifer (cu.m) | Porosity | In-situ Brine Volume | K (mg/L) | | | In-situ SOP estimate (MT) | |
|---|---|---|---|---|---|---|---|---|
| | | | | 1 Std Dev below | Mean Value | 1 Std Dev above Mean | Min | Max |
| Surficial Aquifer Volume | 8,154,700,000 | 40% | 3,262 | 3848 | 4968 | 6087 | 28.0 | 44.3 |
| Clay Volume | 11,626,000,000 | 43% | 4,999 | 4091 | 5,226 | 6361 | 45.6 | 70.9 |
| Sand Volume | 1,719,000,000 | 32% | 550 | 4091 | 5,226 | 6361 | 5.0 | 7.8 |
| **Total (MCM / MT)** | **21,500** | | **8,811** | | | | **79** | **123** |

*Note: This does not constitute an Exploration Target as per JORC. It is simply the estimate of total in-situ brine for comparison with other published reports*

*Table 2: Goldphyre Resource's Lake Wells Potash Project: Estimated Volume of In-situ SOP*

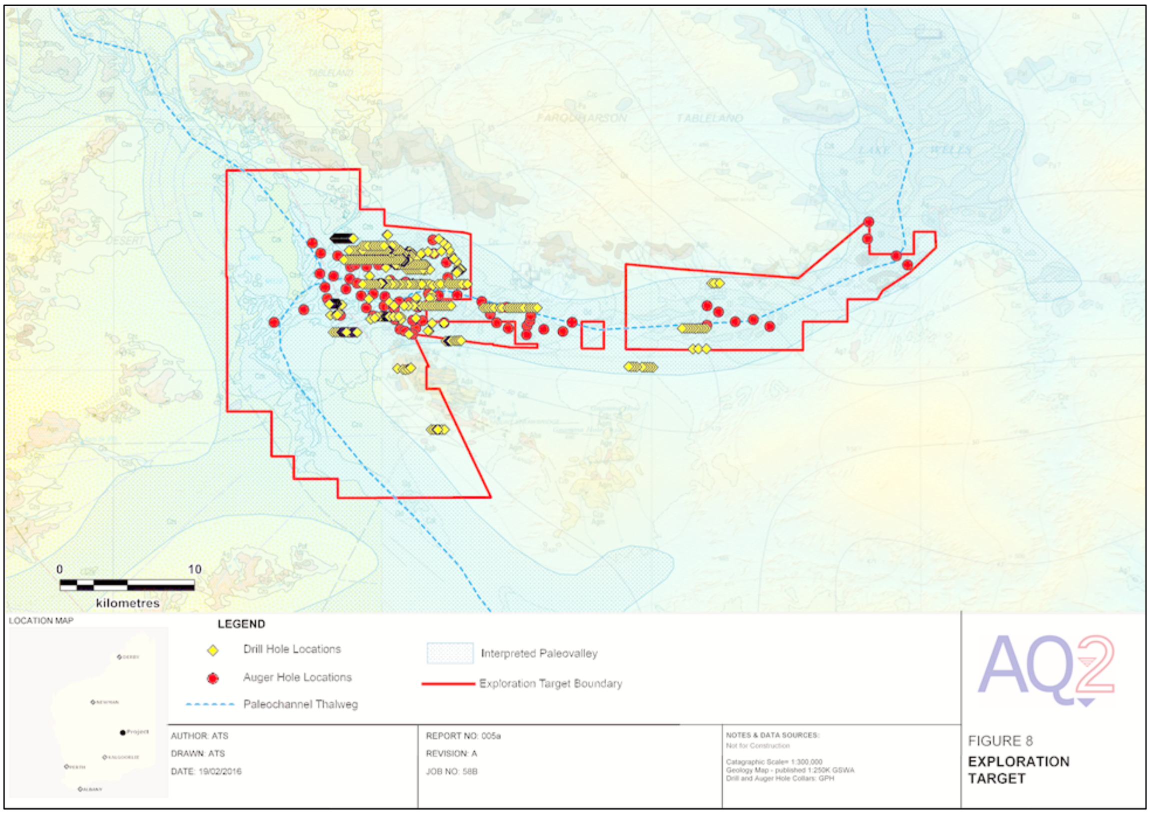


*Figure 1: Goldphyre Resource's Exploration Target Area*

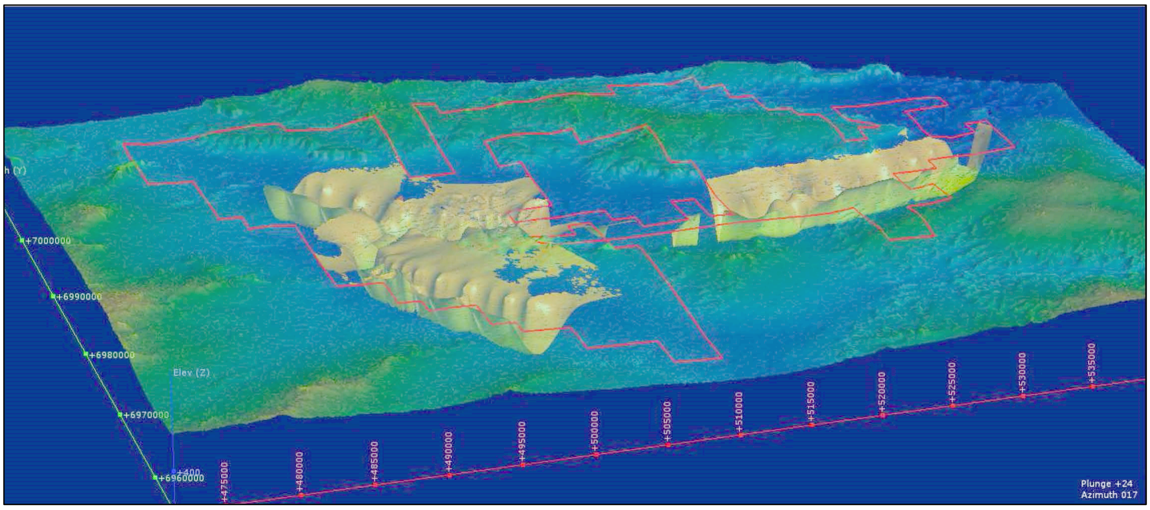


*Figure 2: Goldphyre Resource's Exploration Target Area*

**Basis of Exploration Target**

The area covered by the Exploration Target is shown in Figures 1 & 2. The Exploration Target is based on the development of a conceptual hydrogeological model underpinned by drilling, auger, test pit and seismic data. However, there are areas where the conceptual hydrogeological model remains uncertain, in particular:

- The basal sand underlying the Tertiary clay has been inferred from depth to basement, the geomorphological setting and the common occurrence of basal sand in the regional palaeochannel system. An exploration drilling programme is currently planned to confirm the presence of this sand. Results are anticipated by end Q2, CY2016.
- 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). In-situ hydraulic testing and additional laboratory analysis is planned as part of current exploration activities. Results are anticipated by end Q2 CY2016. Pumping tests are planned as part of future exploration work during H2 CY2016.
- The palaeochannel extent has been inferred from detailed topographic analysis and from Geoscience Australia's regional mapping of the Tertiary palaeodrainage system (Bell et. al., 2012). However, the inferred extent is beyond the area of drilling and seismic survey. Additional Tromino seismic survey is planned as part of current exploration activities. This will confirm the channel extent to the north and south underlying both Lake Wells and the associated palaeodrainage system. Results are anticipated by end Q2 CY2016.
- Over the western part of Lake Wells, brine samples have only been collected from shallow auger holes. In the central part of the project area, there is a strong correlation between brine concentrations in shallow auger holes and at depth. While this relationship is likely to be consistent across the lake, it has not been confirmed for areas to the west.

Current exploration activities include deep drilling in the western area to confirm both the presence of the basal sand and also the concentration of brine through the profile. Results are anticipated by end Q2 CY2016. The extent to which future studies will convert the Exploration Target into a Mineral Resource remains uncertain. To take account of these uncertainties, the Exploration Target comprises a range, based on:

- The volume of host aquifer has been estimated from 3D geological modelling using drilling results and seismic survey, where these data are available. Beyond the area where data are available, the 3D geological model is based on the inferred lateral extent of the palaeochannel from Geoscience Australia work, detailed topographic analysis and basement outcrop assessment. In the areas where no local data are available, the thickness of geological units within the palaeochannel is based on typical unit thicknesses as estimated in both the area of the LWPP where drilling and seismic survey are available; and from the Northern Goldfields Hydrogeological Study (Department of Water (ex Water and Rivers Commission) 1999).
- The lateral extent of the Exploration Target has also been limited to:
    - Areas within the project tenements (i.e. no account is taken of brine which may be drawn in along the palaeochannel from outside the tenement during pumping); and
    - Areas beneath or in close proximity to the current Lake Wells playa lake, where evaporative concentration of salts is an active process (i.e. no account is taken of brine which may exist in the broader palaeochannel system at substantial distances from Lake Wells).
- The volume of potentially recoverable brine for each hydrogeological unit is controlled by the specific yield (or drainable storage) for that unit. The Exploration Target has considered a maximum and minimum value for specific yield: derived from the maximum and minimum laboratory values for the surficial aquifer and clay aquitard; and an adopted plausible range from regional studies for the basal-sand. It should be noted that the use of Specific Yield complies with the only CRIRSCO reporting code to include a brine-standard (NI43-101); specifically, it has regard to the likelihood of future economic abstraction.
- Minimum and Maximum SOP concentrations have been used to derive the Exploration Target range; they are based on the mean value +/- 1 standard deviation, for the maximum and minimum respectively. Separate values have been calculated for the surficial aquifer and clay aquitard. The values derived for the clay have been adopted for the inferred basal sand.

**The Lake Wells Potash Project**

A drilling program conducted at Lake Wells in July 2015[i] identified high-grade potash mineralisation both beneath the lake and the low dune areas surrounding the lake, including wide intercepts of high-grade potash to depths of 135m (down-hole), which was the depth capacity of the drill rig used.

Two passive seismic survey programs have been conducted at the Project[ii] [iii]. This data permits the clear targeting of drill holes into the deepest parts of the palaeochannel, allowing Goldphyre to assess the characteristics of the sand layers traditionally found in the bottom strata of the palaeovalley sediments (Figure 3). This coarse, unconsolidated material often has a high permeability, which facilitates drainage of the overlying hydrogeological units.

Goldphyre is finalising plans to conduct another drilling program at the Lake Wells Potash Project. This program will be aimed at understanding the sand, or basal layer, found at the bottom of the palaechannel (Figure 3).

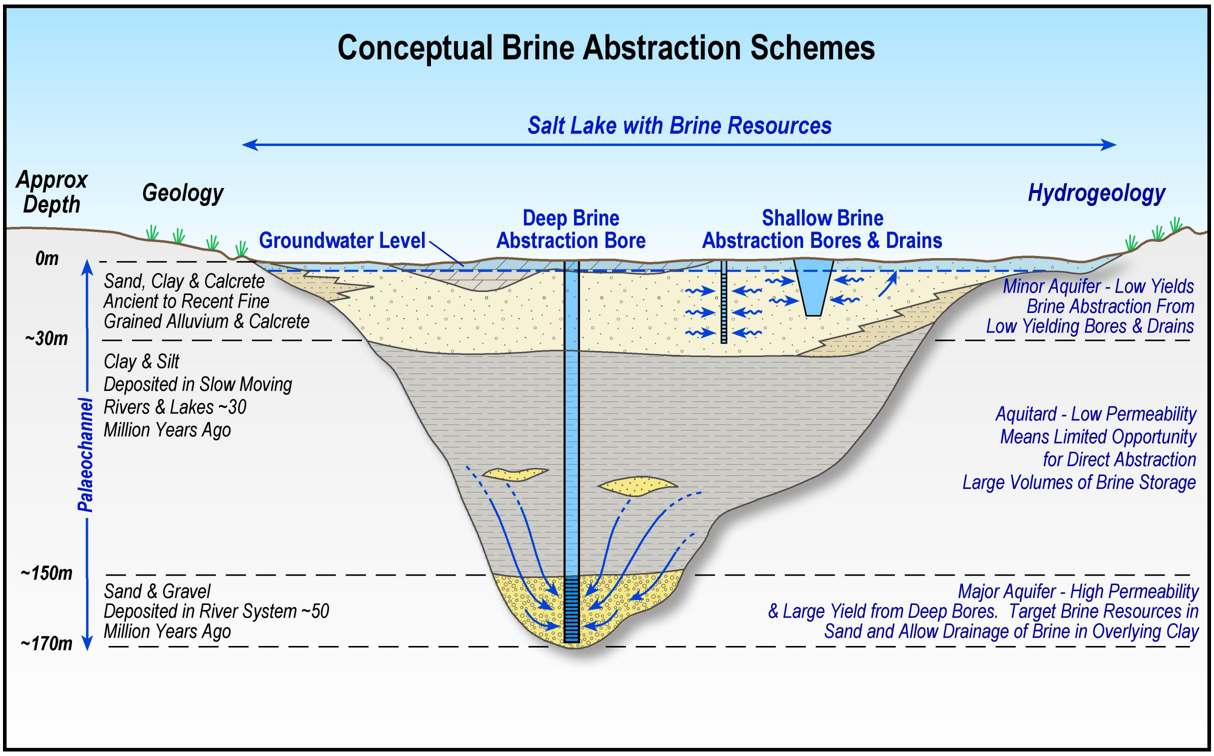


*Figure 3: Goldphyre's pending RC drill program will target the deepest sections of the extensive palaeovalley, which is where the highly porous sand layers are traditionally found*

Using the results of the planned drilling program, Goldphyre plans to release a maiden resource estimate in H1 2016.

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**Competent Person's Statement**

The Hydrogeological information in this report has been prepared by AQ2 with direction and review by Jeffery Lennox Jolly. Mr Jolly is a principal hydrogeologist with AQ2 and has over 30 years of international experience. He is a member of the AusIMM and the International Association of Hydrogeologists. My 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".

Jeff 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, Mineral Resources or Ore Reserves is based on information compiled by Brenton Siggs who is a member of the Australasian Institute of Geoscientists. Brenton Siggs is contracted to the Company through Reefus Geology Services and is a Non-Executive Director (Exploration Manager) of Goldphyre Resources Limited. Brenton 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 is a shareholder and director 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).

Brenton 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

### Drill collar data

| Hole | Hole Type | Northing(m) | Easting(m) | RL | 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 |

## Appendix 2

### Auger/pit data

| SampleID | Easting (m) | Northing (m) | RL (m) | Ca (mg/L) | K (mg/L) | SO4 (mg/L) | Na (mg/L) | Cl (mg/L) | Mg (mg/L) | TDS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| LGW005 | 499890 | 6987170 | 447 | 579 | 4540 | 22700 | 68700 | 101000 | 9840 | NA |
| LGW006 | 502892 | 6987109 | 446 | 712 | 5250 | 17400 | 73200 | 115000 | 7540 | 237000 |
| LGW007 | 504878 | 6987643 | 444 | 922 | 4620 | 14800 | 65700 | 101000 | 6270 | NA |
| LGW008 | 502650 | 6985230 | 449 | 573 | 5080 | 16200 | 76100 | 122000 | 8530 | NA |
| LGW009 | 500131 | 6985320 | 449 | 463 | 5790 | 23000 | 79700 | 135000 | 12600 | 287000 |
| LGW011 | 501770 | 6989270 | 447 | 1090 | 2670 | 12200 | 42500 | 68600 | 4680 | NA |
| LGW013 | 496680 | 6989439 | 447 | 858 | 4970 | 19200 | 60400 | 98000 | 8780 | NA |
| LGW014 | 495402 | 6989653 | 446 | 851 | 4060 | 19300 | 54500 | 90800 | 8930 | 175000 |
| LGW015 | 496371 | 6987778 | 446 | 970 | 3590 | 17000 | 47300 | 81400 | 7890 | 150000 |
| LGW016 | 495900 | 6985919 | 447 | 987 | 3920 | 18000 | 51500 | 84800 | 8560 | NA |
| LGW017 | 496886 | 6984554 | 445 | 816 | 4640 | 18200 | 64100 | 106000 | 9930 | 199000 |
| LGW019 | 504612 | 6983940 | 447 | 814 | 4580 | 21200 | 68300 | 99700 | 9370 | 190000 |
| LGW020 | 502261 | 6982994 | 450 | 510 | 4380 | 19900 | 67700 | 119000 | 10300 | NA |
| LGW027 | 528854 | 6983607 | 440 | 880 | 4230 | 15200 | 69800 | 126000 | 6760 | 220000 |
| LGW028 | 527636 | 6984176 | 444 | 788 | 2720 | 17100 | 50400 | 97400 | 5450 | 178000 |
| LGW029 | 526288 | 6984010 | 443 | 480 | 6100 | 21400 | 111000 | 166000 | 9140 | 296000 |
| LGW030 | 525044 | 6984810 | 447 | 932 | 3470 | 15600 | 65300 | 102000 | 5900 | 192000 |
| LGW031 | 524176 | 6983712 | 444 | 550 | 4390 | 17900 | 78800 | 146000 | 9600 | 275000 |
| LGW032 | 524196 | 6985312 | 440 | 385 | 5290 | 19800 | 84400 | 161000 | 8890 | 291000 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| LGW040 | 508511 | 6983949 | 447 | 488 | 5400 | 19600 | 91800 | 146000 | 9360 | 283000 |
| LGW041 | 509378 | 6983480 | 448 | 479 | 7360 | 21200 | 97600 | 171000 | 9530 | 318000 |
| LGW043 | 505573 | 6986212 | 448 | 650 | 5170 | 16600 | 74600 | 131000 | 8610 | 236000 |
| LGW044 | 506164 | 6987064 | 445 | 552 | 6020 | 18900 | 90200 | 161000 | 7730 | 298000 |
| LGW045 | 497981 | 6988711 | 448 | 416 | 5710 | 24600 | 73700 | 142000 | 10700 | 276000 |
| LGW046 | 498131 | 6987191 | 450 | 510 | 5000 | 23600 | 66500 | 127000 | 11000 | 262000 |
| LGW047 | 498426 | 6986168 | 449 | 436 | 6800 | 21200 | 84400 | 156000 | 15500 | 134000 |
| LGW048 | 504776 | 6988893 | 447 | 1070 | 2900 | 15300 | 43200 | 67500 | 4170 | 151000 |
| LGW049 | 504185 | 6986188 | 452 | 443 | 5340 | 23300 | 79400 | 142000 | 7720 | 279000 |
| LGW050 | 502645 | 6985228 | 449 | 542 | 5450 | 5030 | 85400 | 135000 | 9740 | 230000 |
| LGW051 | 500949 | 6984208 | 451 | 535 | 4680 | 26600 | 70000 | 124000 | 10900 | 210000 |
| LGW054 | 494145 | 6985011 | 453 | 833 | 4420 | 18800 | 56800 | 107000 | 9550 | 209000 |
| LWAG101 | 497301 | 6986707 | 444 | 699 | 5100 | 19000 | 65100 | 123000 | 9270 | NA |
| LWAG103 | 497570 | 6987554 | 442 | 408 | 5960 | 23000 | 83600 | 152000 | 11200 | NA |
| LWAG105 | 497641 | 6988536 | 450 | 566 | 4460 | 24000 | 64600 | 124000 | 10700 | NA |
| LWAG108 | 495338 | 6987973 | 441 | 637 | 4590 | 22000 | 62900 | 121000 | 9640 | NA |
| LWAG110 | 491931 | 6983970 | 448 | 1030 | 3680 | 15000 | 46100 | 86100 | 6590 | NA |
| LWAG112 | 494777 | 6990475 | 443 | 748 | 3500 | 21000 | 53400 | 98200 | 8700 | NA |
| LWAG114 | 495714 | 6986862 | 445 | 630 | 4470 | 22000 | 63500 | 122000 | 10300 | NA |

## Appendix 3 Reporting of Exploration Results – JORC (2012) Requirements

## LAKE WELLS POTASH PROJECT

### 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.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *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 (e.g. submarine nodules) may warrant disclosure of detailed information.* | • Sampling was completed via air-core (AC) drilling techniques and hand auger techniques. Brine samples were collected during drilling and on completion of each auger hole. |
| ***Drilling techniques*** | • *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).* | • AC drilling completed by Raglan Drilling, Kalgoorlie. AC blade and AC hammer bit achieved hole diameter size of 85mm.<br>• Hand-held auger was used for auger holes. |
| ***Drill sample recovery*** | • *Method of recording and assessing core and chip sample recoveries and results assessed.* | • Groundwater (brine) samples collected and sample condition recorded at time of sampling.<br>• Drilling with care (e.g. clearing hole at start of |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | • *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.* | rod, regular cyclone cleaning) but majority of lithological samples moist/wet due to primary aim of targeting brine samples.<br>• Insufficient mineral samples with elevated or significant values to determine whether relationship exists between sample recovery and grade. |
| ***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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • Logging carried out by inspection of washed cuttings at time of drilling with end-of-hole (EOH) samples and any unusual lithologies collected in plastic chip trays for future reference. |
| ***Sub-sampling techniques and sample preparation*** | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • No core drilling<br>• Brine water samples were collected with a clean bucket from the rig cyclone. 250ml sterile sample bottles issued by laboratory were used. At the end of each rod, air turned on and brine (if present) flows through cyclone and sample collected after initial discharge flow of brine.<br>• Duplicate samples (approx. 1:20) also collected for QA/QC analysis and despatched to umpire laboratory for brine analysis.<br>• Once collected, brine samples were kept in cold (<8°C) storage and delivered to laboratory within 7 days of field collection. Major cations are analysed using either ICP-AES or ICP-MS techniques. Dissolved sulphate is determined in a 0.45um filtered sample. Sulphate ions are converted to a barium sulphate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is 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 Hydrometer method.<br>• Sample size (250 ml bottle) 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.*<br>• *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.*<br>• *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.* | • **BRINE SAMPLES** Major cation (Ca, K, Na, Mg) and anions (Cl, sulphate, alkalinity) analysis of samples at ALS Environmental, Perth and ALS Ammtec, Perth. Solutions at ALS Environmental were determined by ICP-OES. Solutions at ALS Metallurgy were assayed using ICP/AAS Direct Spray Dilution test. Major cation (Ca, K, Na, Mg) and anions (Cl, sulphate, alkalinity) analysis of duplicate samples was completed at MPL Laboratories and Bureau Veritas, Perth. Solutions at Bureau Veritas were determined by ICP-ES.<br>• **BRINE SAMPLE** ANALYSIS QA/QC methods - QA/QC procedures included use of reference brine solution and internal laboratory standards and instrument calibration were completed as a matter of course. Other data QA/QC checks undertaken include:<br>Inter-laboratory duplicate<br>Inter-laboratory reference brine solution comparison |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| ***Verification of sampling and assaying*** | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • 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. |
| ***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.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • Drill collars were surveyed by handheld Garmin 60 GPS with horizontal accuracy (Easting and Northing values) of +-5m.<br>• Grid System – MGA94 Zone 51.<br>• Topographic elevation using published GSWA geological maps and hand held GPS with Z range +-15m suitable for relatively flat terrain. |
| ***Data spacing and distribution*** | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • Hole spacing on approximate 1-2 km drill pattern and 3m downhole brine sample interval across the target salt lake system and exceeds SEG and Bench mark standards for Inferred Brine Resource classification (Houston, Butcher, Ehren, Evans, Godfrey (2012) The Evaluation of Brine Prospects and the Requirement for Modification to Filing Standards. Economic Geology v106, pp1225-1239. |
| ***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.*<br>• *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 central and margin areas of the salt lake and target aquifer(s) within interpreted flat lying transported sedimentary profile and weathered-transitional Archaean rocks.<br>• Drilling orientation is suitable for the primary commodity target of potash brine. |
| ***Sample security*** | • *The measures taken to ensure sample security.* | • Samples collected from the field delivered by field team direct to drop off point in Kalgoorlie for despatch to Perth lab. |
| ***Audits or reviews*** | • *The results of any audits or reviews of sampling techniques and data.* | • No audits or reviews completed on this batch of samples. |

## 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.*<br>• *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, ELA38/3109, E38/2742 and E38/2744. All tenements except for E38/2742 and E38/2744 are held 100% by Goldphyre Resources Limited and in good standing. Tenements E38/2742 and E38/2744 are the subject of a Split Commodity Agreement executed by Goldphyre Resources Limited and Lake Wells Exploration Pty Ltd in December, 2015. There is no Native Title Claim registered in respect of the project tenure. Accordingly, there is no requirement for a Regional Standard Heritage Agreement to be signed.<br>• 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/RAB 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, |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | | Anglogold Ashanti Australia Ltd, Croesus Mining NL and Terra Gold Mining Ltd. |
| ***Geology*** | • *Deposit type, geological setting and style of mineralisation.* | • The deposit is a brine containing the target potassium and sulphate ions that could form a potassium sulphate salt (Potash). The brine is contained within saturated sediments below the surface of Lake Wells which sits within a broader regional palaeochannel system. The brine has formed due to evaporative concentration in playa lakes within the palaeochannel 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:*<br>• *easting and northing of the drill hole collar*<br>• *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>• *dip and azimuth of the hole*<br>• *down hole length and interception depth*<br>• *hole length.*<br>• *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 data completed by Goldphyre Resources Limited and collar information for drill holes is included in Appendix 1. |
| ***Data aggregation methods*** | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>• *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.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | • Significant intercepts were reported as down-hole length and no minimum and maximum cut-off grades have been applied.<br>• Average Sulphate of Potash (SOP) values reported from all brine samples collected in a particular interval although several drill holes returned isolated 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.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *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').* | • The brine deposit is a flat resource hosted within a palaeochannel-controlled 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 tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.* | • Appropriate summary diagrams with Scale and North Point shown is/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 potash results from within the brine aquifer have been reported. |
| ***Other substantive exploration data*** | • *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | • A Tromino passive seismic survey has been undertaken over part of the Exploration Target to successfully substantiate the inferred paleo-channel and depth to basement.<br>• Lithological samples of sedimentary units have been subject to grain size analysis. This has been used to make preliminary estimates of aquifer properties. |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| ***Further work*** | • *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *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 potash brine results returned **and *Other Substantive Exploration data*** summarised above, the design of followup drilling program(s) (including passive seismic, mud rotary and core drilling) are under preparation.<br>• Extension and infill areas around the Exploration target area as shown in diagram(s) included in the accompanying report will be assessed. |

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*i 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.*

*ii 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.*

*iii 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.*