Highfield Resources

ASX Release

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Issued Capital
95.5 million shares
100 million performance shares
10 million options

ASX Code
HFR

PINTANO POTASH PROJECT EXPLORATION TARGET

HIGHLIGHTS

- **Significant Exploration Target* estimated at approximately 306 – 338 million metric tonnes (MMT) of sylvinite**
- **Exploration Target* equates to a potential range of 44 million to 76 million tonnes of KCl (potash)**
- **Exploration Target* K_2O grade of 9.1% to 14.1% (14.4% to 22.3% KCl)**
- **Relatively shallow mineralisation target starting at depths of between 510 metres and ranging to around 800 metres**
- **Exploration Target primarily based on historic drill hole logs and re-interpreted seismic**
- **Re-interpreted seismic shows no indication of wide spread salt removal due to faulting or dissolution**

The Board of Highfield Resources is pleased to announce the initial Exploration Target for the Company's 100% owned Pintano Potash Project located in Spain's potash producing Ebro Basin (Figure 1). This Exploration Target was prepared for the Pintano Potash Project Area only and excludes the Javier and Sierra del Perdon Potash Projects.

EXPLORATION TARGET*

Pintano Exploration Target - February, 2013

Area	Exploration Target Sylvinite Tonnage (MMT) (1)	Estimated Average Weighted %K_2O Range (2)	Estimated Gross K_2O Exploration Target Range (MMT) (3)	Estimated Gross KCl Exploration Target Range (MMT) (3)
Pintano	306 - 338	9.10 - 14.10	28 - 48	44 - 76

(1) Exploration Target Sylvinite Tonnage (MMT) refers to the total exploration target contained within the Pintano Project Area based on current historical exploration results. Sylvinite Tonnage = volume of total rock based on drilling intersections detailed in Table 1 below and a radius of influence of 3,200m x the rock density (assumed 2.15g/cm^3 based on density samples taken during the 2012 North Rim site visit. Sylvinite refers to a mineralogical mixture of halite and sylvite +/- minor clay and carnallite.

(2)Estimated Average Weighted % K_2O Range was determined by calculating the average weighted %K_2O over the Pintano area based on historical assays. An average weighted % K_2O of 11.60 was determined for Pintano. Based on re-sampling results from an adjacent area a grade range of 2.5% was assigned above and below the average grade for the Pintano area to account for uncertainty in the historical results and allow for a realistic range of values. North Rim was not present for the drilling or interpretation of any of the wells used in this report. North Rim therefore relies on the accuracy of the data historically provided and cannot comment on the quality or method in which the data was retrieved or interpreted.

(3) "Estimated Gross K_2O Exploration Target" and "Estimated Gross KCl Exploration Target" refers to the potential amount of K_2O and KCl that may possibly exist within the Project Area as a low and high range depending on the thickness and grade.

**The Exploration Target quantity and grade ranges of the Pintano Project Area are conceptual in nature and there is insufficient exploration at this time to define a Mineral Resource Calculation under the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code, 2012 Edition". It is uncertain at this time if further exploration work will result in the determination of a Mineral Resource Calculation. North Rim has selected an area of the potash mineralisation which seems reasonable for inclusion as an Exploration Target based on level of confidence and historical data; however, North Rim does not imply that the potash is economically extractable in any manner. Further exploration is required to determine the full extent of the area and may lead to an increase or a decrease in the potential Exploration Target tonnage and grade ranges listed herein.*

PROJECT OVERVIEW AND EXPLORATION TARGET RATIONALE

The potash deposits underlying the Pintano Project Area appear to be characterised by a predominantly "simple" deposit mineralogy dominated by various potash salts; sylvite, halite and minimal carnallite, with accessory insolubles such as clays, muds, and anhydrite. The mineralisation is hosted within thick evaporite packages consisting of a hanging wall salt, potash member, and a footwall salt member showing an overall regional dip to the southeast. A basal anhydrite marker is typical within the Project Area vicinity, found at the base of the footwall salt and acting as a good marker bed.

Depth to the potash interval chosen for the Exploration Target varies from approximately 510 metres to 800 metres, which is considered reasonably shallow compared to many other world wide deposits. The thick evaporite packages could be reviewed for halite potential as well as sylvite mineralisation. The Exploration Target has only focussed on K_2O from sylvinite and has not taken into account other mineralogical potential. The seismic interpreted salt packages will be used in conjunction with historical drilling and exploration data to determine suitable future drilling locations for the Pintano Area. If future positive drilling and geochemical results are achieved, Pintano shows promise for increased mineralisation development and delineation.

Mineralisation is open to the northeast, southeast and south-southwest due to lack of drilling and shows promise for increased mineralisation potential if drilling results are positive. Although the deposit appears open in many directions North Rim and Highfield have taken a conservative approach in defining the Exploration Target based on the level of confidence of the mineralisation and available data at the time of this release. Highfield Resources is presently planning a drilling programme to test this Exploration Target as well testing the potential additional areas of mineralisation as detailed above.

The geological continuity and mineralisation within the Pintano Project Area has been shown through historical drilling, geochemical assay results, geophysical wireline, and re-interpreted seismic data. Good continuity of potash mineralisation is evident between the three drill holes PP-2B, P-1, and PP-3 with increased mineralisation thickness towards P-1 and PP-3 as illustrated in Table 1. Due to lack of wireline data in P-1, continuity of the potash beds is assumed through the historical assays.

Table 1: Interval and weighted percent K_2O for the Pintano Exploration Target drill holes.

Pintano Potash Intersections used in Exploration Target

Drill Hole	From (m)*	To (m)*	Interval (m)	Weighted % K_2O Over Interval****
PP-2B	509.55	514.44	4.89	13.89
P-1	636.33	644.91	8.58	10.84
PP-3	801.40	808.87	7.47	13.33
P-2**	N/A		1.50	8.00
PP-2***	N/A			
P-3	No Potash			
PP-1	No Potash			
MGD	No Potash			

**Historical assay depths: depths for PP-2B shifted to match wireline depths, not required for PP-3, no wireline for P-2.*
*** Interval and Weighted K_2O values based on cut-offs and the broad assumptions are discussed within the release.*
****Full assay results are not available, wedge hole PP-2B used instead.*
***** Based on historical assay results, weighted over sample interval lengths.*

The geophysical logs were reviewed for potash mineralisation. The geophysical log signatures correlate well to the historical assay results in PP-2B and PP-3 (no wireline for P-1) and can independently confirm the likely presence of potash mineralisation within Pintano; wireline gamma ray logs read radioactive elements, including potassium and can be used to validate the presence of potassium from sylvite (KCl) based on the values and signatures given during the downhole testing.

In all three wells (PP-2B, P-1, and PP-3) the historical assays were sampled in intervals of approximately 30 centimetres or less. This sampling interval selection is consistent with typical current industry standards to ensure proper sampling resolution is achieved over the mineralised intersection. It is also worth noting that the historical geological formation picks correlated well to seismic and wireline data where available. Although the assays cannot be confirmed, confidence lies in the presence of notable potash intersections within Pintano.

In addition to the historical data review, seismic for the Pintano Project Area was re-interpreted by RPS Energy Canada Limited ("RPS") in January 2013. The re-interpretation results showed no indication of widespread salt removal due to faulting or dissolution, which is very positive. Most of the structural disturbance appears to be below the salt package however, the quality of the seismic data deteriorates over fault controlled structural highs.

Anthony Hall
Managing Director

Competent Persons' Statement

This ASX release was prepared by Mr. Anthony Hall, Managing Director of Highfield Resources, Ms Tabetha Stirrett, P.Geo, and Ms Kelsey Mayes, P.Geo. of North Rim. The Competent Person under JORC Code standards and reviewer for this release is Ms Tabetha Stirrett, P.Geo. of North Rim Exploration Limited of Saskatchewan, Canada. Ms Stirrett is a Professional Geoscientist and member in good standing with the Association of Professional Engineers and Geoscientists of Saskatchewan which is a JORC Code 'Recognized Professional Organization' (RPO). An RPO is an accredited organization of which the Competent Person under JORC Code Reporting Standards must belong in order to report Exploration Results, Mineral Resources, or Ore Reserves through the ASX. Ms Stirrett is a geologist and Business Development Manager with North Rim and has sufficient experience to qualify as a Competent Person for the relevant style and type of mineralization and deposit under consideration of this release. Ms Stirrett consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

ABOUT HIGHFIELD RESOURCES

Highfield Resources is an ASX Listed potash company with four key projects located in Spain and Australia.

Highfield's Javier, Pintano and Sierra del Perdon potash projects are located in the Ebro potash producing basin in Northern Spain. The Sierra del Perdon project includes two former operating mines. Highfield's key objective is to quickly recommence production from these mines. The Javier and Pintano potash projects are located in two separate sub basins within 60 kilometres of the former operating mine. Highfield owns a 100% interest in the five granted tenements with three applications pending that comprise the three projects and cover over 400 km^2.

Highfield's McLarty potash project is located in the Canning Basin of northern Western Australia. The Canning Basin contains vast accumulations of Ordovician evaporite salt bearing sediments at relatively low depths underground that is considered prospective for economic potash mineralisation. The Company has entered into a farm in agreement to explore three granted tenements and may obtain an interest of up to 80% of the project.

Exploration Target

The Exploration Target has been prepared by Highfield's independent potash experts, North Rim Exploration Ltd based on the following:

Seven drill holes and one wedged hole (PP-2B) have been historically drilled in the Pintano Area. The Exploration Target has been compiled based primarily on historical data, geochemical assay results, geophysical wireline data, and recently re-interpreted seismic data. Two historical drilling campaigns were run within the Pintano Project Area, one by e.n. adaro, an operation run by the Spanish Government from 1989 – 1990 and one of unknown vintage. The Exploration Target is based upon three drill holes (PP-2B, P-1, PP-3) completed during the more recent campaign run by e.n. adaro (Table 1 above). All historical documentation regarding the Pintano Project Area is proprietary and not publically available for review, but has been reviewed by the Competent Person for quality and completeness.

A stratigraphic grid model was built for the Pintano area, based on existing well logs and historical assay data. Assay data in Pintano is only available for wells P-1, PP-2B and PP-3, with wireline available for both PP-2B and PP-3. The assays from the wedged hole, PP-2B were used for the Exploration Target as the original well assays were not complete (PP-2). Potash seams were defined by selecting continuous mineralisation with a weighted average of no less than

8.0% K_2O. Although no assay data was available for P-2, previous historical mineralisation calculations indicate the presence of weak potash mineralisation. A relatively thin intersection (1.5 m) and minimum low grade (8.0%) was therefore assigned to P-2. A seam thickness of 1.5 m is marginally above the cut-off of 1.2 m (used as grid cut-off), but significantly below the other seam intersects within the Pintano area. The range used for the Sylvinite Tonnage (MMT) was determined from the average thickness of all mineralized wells in the Project Area. A 5.0% difference on either side of the total tonnage was used to account for local thickening or thinning of potash within the Pintano area. Seam composites with inverse distance interpolation were complete to determine the grade distribution. Table 1 above lists the intersections and associated weighted K_2O values for Exploration Target drill holes.

A radius of influence (ROI) of 3,200 m was used and was further limited by the presence of known barren wells (P-3, PP-1, and MGD) and the permit boundaries. An interpreted potash edge was determined (shown in Figure 3 and Figure 4) based on the interpolated grid results, taking into consideration the 1.2 m grid thickness cut-off and the modelling results. Based on Highfield re-sampling results from the Javier area a grade range of 2.5% was assigned above and below the average grade for the Pintano area to account for uncertainty in the historical assay sampling techniques and results. The resulting Exploration Target is shown on page 1 of this release.

The Exploration Target is reported as a range of tonnages and grades based upon historical assay results and should not be considered a declaration of Mineral Resources or Ore Reserves, or added together in any manner. No consideration has been made with respect to economic extraction and no other reduction factors have been included to account for unknown geological anomalies.

For the purposes of this release, all drill holes included in the Exploration Target were assumed vertical and true thicknesses of the potash members have not been used, as no deviation surveys were available. It is predicted that some variation in the ranges seen in the Exploration Target and Table 1 above will occur once true potash thicknesses are incorporated.

Additional Notes

Neither the whole nor any part of this study nor any reference thereto may be included in any other document required by Securities Regulatory Authorities or other public forum without the prior written consent of North Rim regarding the form and context in which it appears. Copyright of all text and other matter in this document, including the manner of presentation, is the exclusive property of North Rim and Highfield Resources. It is a criminal offence to publish this document or any part of the document under a different cover, or to reproduce and/or use, without written consent, any technical procedure and/or technique contained in this document. The intellectual property of this report reflected in the contents resides with North Rim and Highfield Resources. North Rim does not have, at the date of this release, and has not had within the previous years, any shareholding in or other relationship with Highfield Resources and consequently considers itself to be independent of Highfield Resources.

North Rim will receive a fee for the preparation of this release in accordance with normal professional consulting practices. This fee is not contingent on the conclusions of this release and North Rim will receive no other benefit for the preparation of this release. North Rim does not have pecuniary or other interests that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the Pintano Project Area.

North Rim was not present for the historical sampling or exploration practices and therefore does not take responsibility for the accuracy of this historical data. It is not known if the personnel, facilities, or analytical procedures used by previous evaluators were independent, or if the authors of those reports were considered "Competent Persons" as defined by the JORC Code. Property descriptions and land status were obtained from the list of lands as set forth in the documents provided by Highfield Resources Limited. No attempt to independently verify the land tenure information was made by the Competent Person.

Historical data summarized or discussed herein are from the following internal proprietary documents:

e.n. adaro. (1989-1990). Investigacion y Evaluacion de Mineral en el Area de Javier-Los Pintano (Anexo 12:I: Columnas Sondeos Mecanicosl) (Internal document).

e.n. adaro. (1989-1991). Investigacion y Evaluacion de Mineral en el area de Javier-Los Pintano, Memoria (internal document).

e.n. adaro. (1989-1991). Investigacion y Evaluation de Mineral en el Area de Javier-Los Pintanos (Anexo 14.I: Analysis Quimicos) (internal document).

POSUSA. (1987). Recursos Minerales Reservas "Javier-Los Pintanos" Y "Monreal" (internal document).

RPS Energy Canada Limited . (January 2013). Javier-Pintano 2D Seismic Project Preliminary Interpretation. Calgary, Canada.

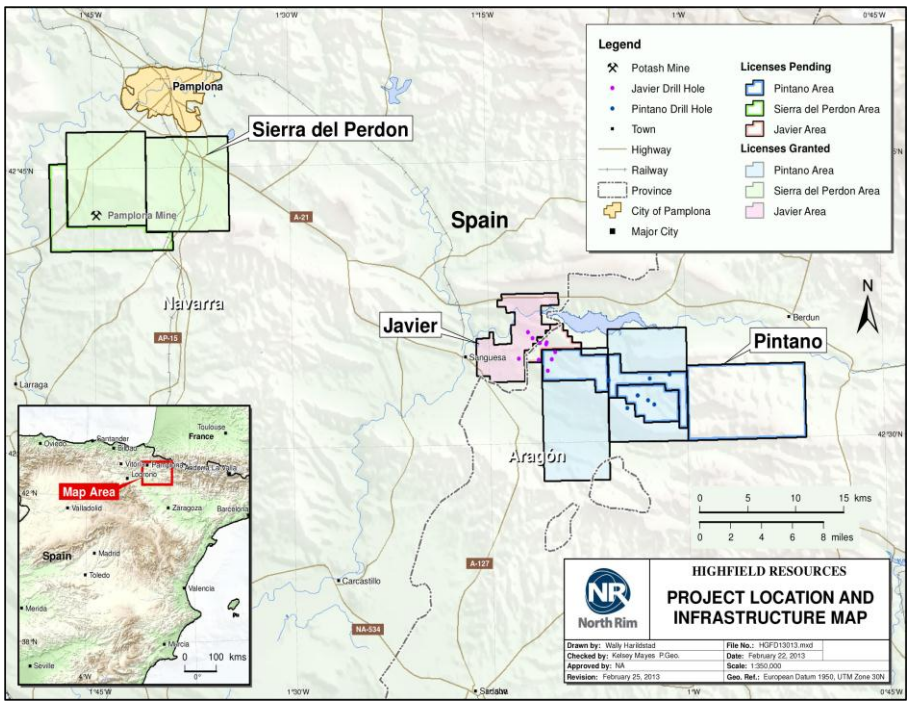

Figure 1: Location of Highfield's Pintano project in relation to its Javier and Sierra del Perdon projects.

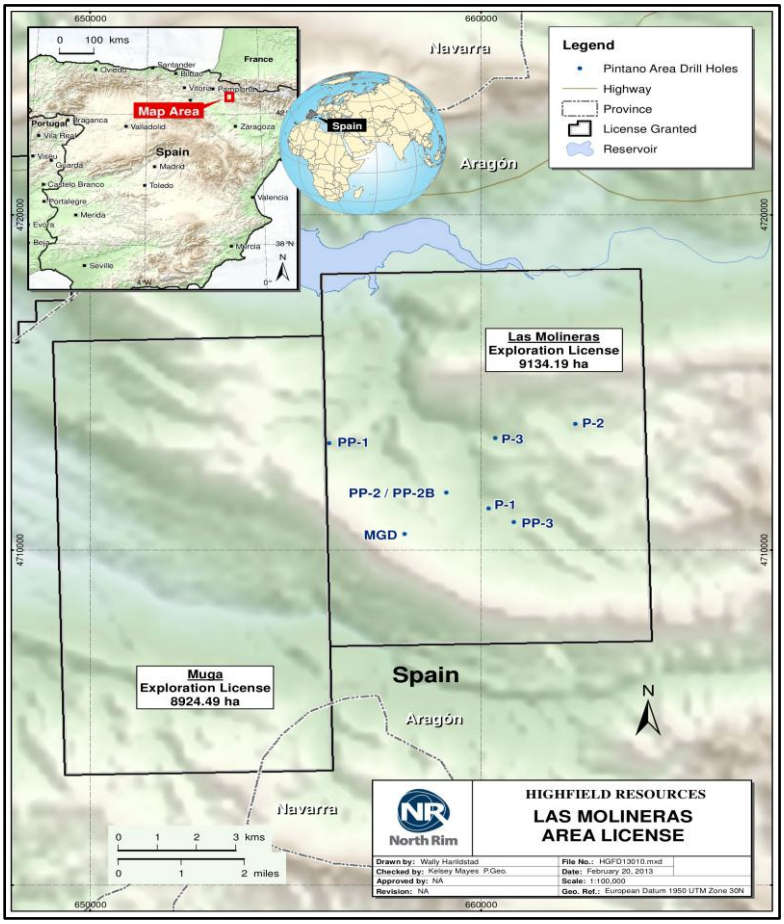

Figure 2: Pintano Project Area location map.

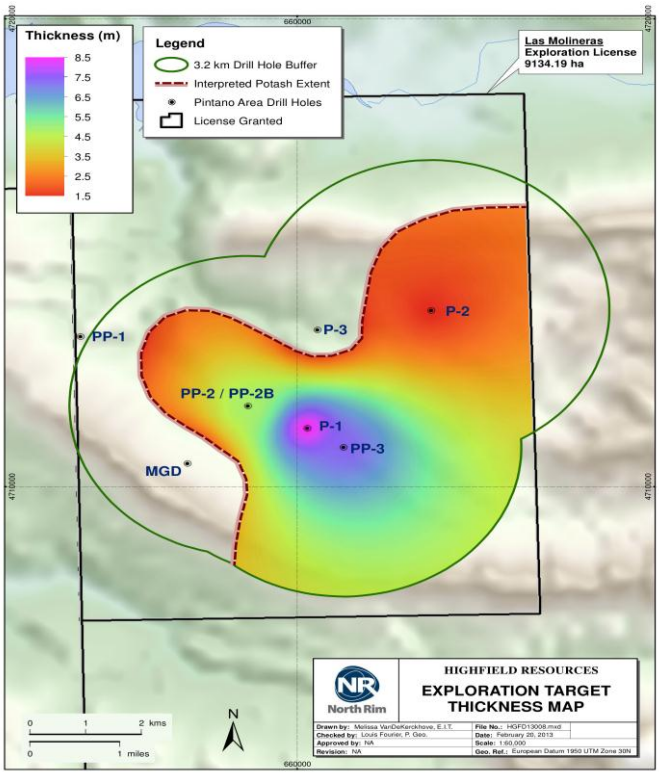

Figure 3: K_2O Thickness map for Pintano Exploration Target. Note the 3,200 m buffer is only present around drill holes with buffer. Dotted interpreted potash extent line reflects the hypothetical boundary of the potash based on the grid model and the applied cut-offs. Buffers are clipped to permit boundaries.

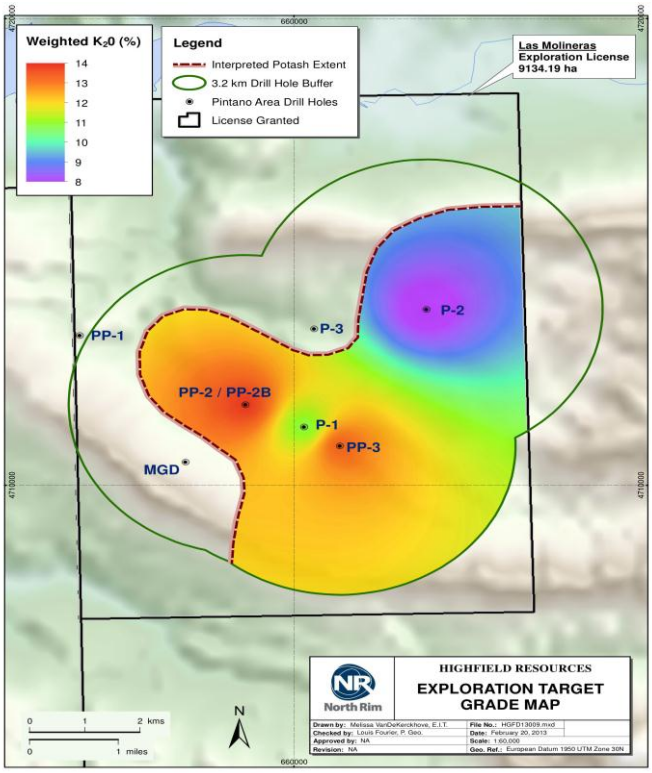

Figure 4: K_2O Grade map for Pintano Exploration Target. Note the 3,200 m buffer is only present around drill holes with buffer. Dotted interpreted potash extent line reflects the hypothetical boundary of the potash based on the grid model and the applied cut-offs. Buffers are clipped to permit boundaries.