ASX Release
19 May 2020

EXPLORATION DRILL HOLES COMPLETED AT MUGA - VIPASCA AND SIERRA DEL PERDÓN PERMIT AREAS

Highlights

- **Recently completed drill-holes at Ampliación de Adiós in the Sierra del Perdón ("SdP") permit area and Vipasca permit area ("Vipasca") have all intersected potash mineralisation at encouraging grades and mineable depths.**

- **Drill-hole V18-03 has confirmed the continuity of the Vipasca ore deposit which remains open towards the west. Specifically, V18-03 intersected a total of 30.2 metres of potash mineralisation including:**
  - **1.5 metres at an average grade of 11.98% K_2O from 1022 metres;**
  - **1.8 metres at an average grade of 11.29% K_2O from 1060 metres; and**
  - **1.5 metres at an average grade of 12.79% K_2O from 1070 metres.**

- **Drill-hole V18-05 has confirmed the extension and continuity of the potash mineralisation between the Muga Project and Vipasca thereby linking these two projects.**

- **Drill-hole AA-01 (Ampliación de Adiós investigation permit) has confirmed the presence of potash mineralisation at shallow depths and the extension of the mineralisation to the south of the former potash operation Potasas de Subiza. This is encouraging in terms of the exploration potential of the southern area of the Sierra del Perdón Project. Specifically, AA-01 intersected a total of 9 metres of potash mineralisation including:**
  - **1.2 metres at an average grade of 9.05% K_2O from 390.8 metres; and**
  - **1.5 metres at an average grade of 14.50% K_2O from 394.1 metres.**

Highfield Resources Chairman and interim CEO, Richard Crookes said: "*The positive results specifically at V18-03 further reinforce the importance of Vipasca to the Muga Project. Importantly, these results provide Highfield with an increased dataset to evaluate and develop a single resource across Vipasca and Muga.***"**

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Overview

Spanish potash developer Highfield Resources (ASX: HFR) ("Highfield" or "the Company"), is pleased to announce further results from the Company's drilling program at the Sierra del Perdón ("SdP") and Vipasca ("Vipasca") prospects.

Vipasca Tenement Area

The Vipasca Permit Area (see **Figure 1**) is located adjacent to the Muga Project ("Muga"), covers approximately 27km^2 and is highly prospective for economic potash mineralisation. The ongoing drill program at Vipasca is focused on the deeper, higher grade, P1 and P2 potash horizons (**Figure 3**).

The Muga Project Update (refer ASX release 15 October 2018 "Muga Project Update") confirmed the strategic importance of Vipasca as a potential extension of Muga to the northwest. The main aim of the current drilling campaign is to confirm and delineate the Muga deposit in its westernmost area. Notably, the results obtained to date have confirmed that the overall geological setting at Vipasca and the lithologies, seams and other geological features are similar to those previously defined by drilling at Muga.

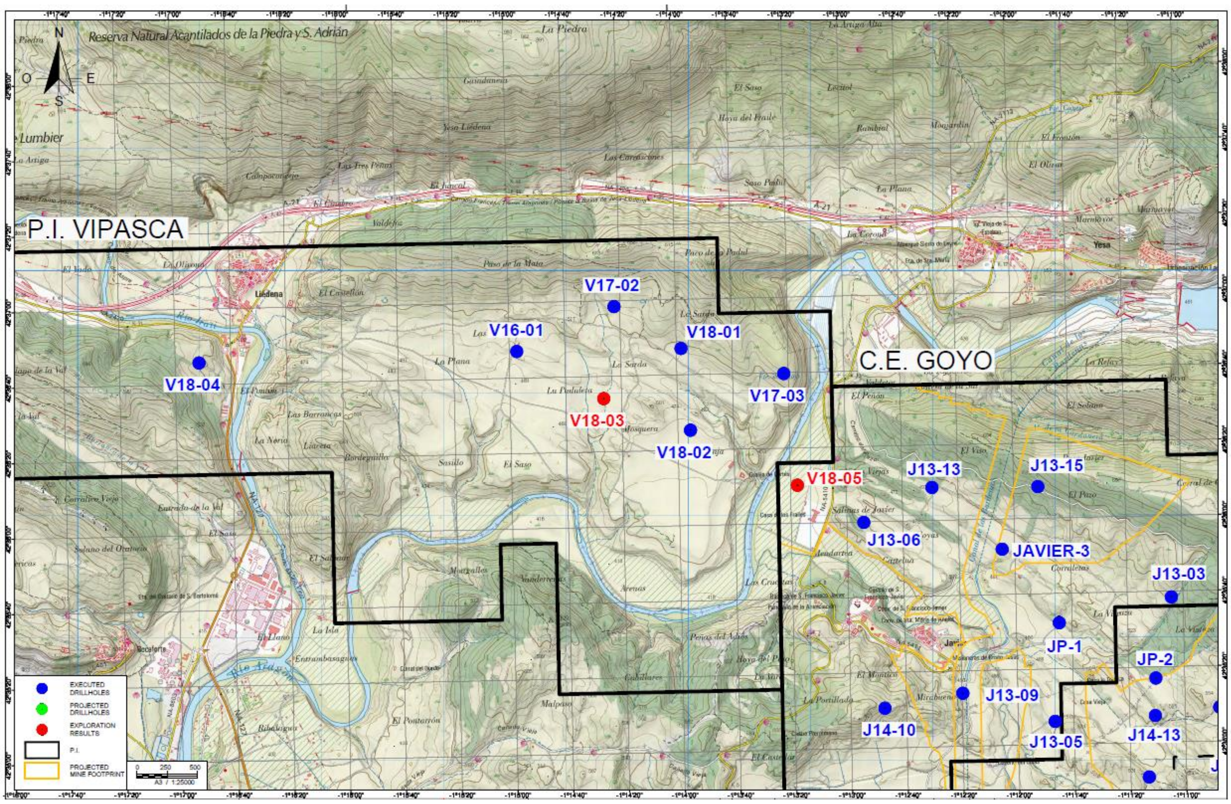

Figure 1: Location of Highfield's Muga - Vipasca drill holes.

Two new exploration drill-holes V18-03 and V18-05 have been completed (**Figure 1)**.

V18-03 was designed to test continuity to the west of drill-hole V18-02, situated 600 metres to the East, where significant grade was intersected in the Upper, the Intermediate and the Lower Potash Intervals. Located in the same geological context, drill-hole V18-03 intersected the entire isoclinal sedimentary overburden sequence and the complete evaporitic sequence as expected.

Table 1 provides the results from drill-hole V18-03. The Upper Potash Interval intersection yielded 4.8 metres with an average grade of 8.00% K_2O, including 1.5 metres at 11.98% K_2O. The Middle Potash Interval yielded 4.9 metres with an average grade of 6.69% K_2O, including 1.8 metres at 11.29% K_2O. The Lower Potash Interval yielded 1.5 metres at 12.79% K_2O. Additional geological information can be found in JORC Table 1, Section 1 and 2, attached in this press release.

DDH V18-03 POTASH GRADES (ICP analysis)

		K_2O(%)	MgO(%)	Na_2O(%)	Cl(%)	SO_4(%)	CaO(%)	Water Insolubles
Upper Potash Interval	Average	**5.64**	**0.10**	**30.40**	**41.48**	**3.90**	**2.46**	**24.87**
From 1019 to 1033.4	max. Value	20.54	0.17	41.38	52.20	7.79	4.52	49.10
Thickness: 14.4 m	min. Value	0.45	0.05	17.46	24.70	2.22	1.37	5.90
Upper Potash Interval (Selected Interval)	**Average**	**8.00**	**0.08**	**30.32**	**43.21**	**3.90**	**2.55**	**22.16**
From 1019 to 1023.8	max. Value	14.39	0.12	36.53	47.70	7.04	4.52	36.30
Thickness: 4.8 m	min. Value	0.80	0.05	22.58	34.40	2.88	1.86	16.40
Upper Potash Interval (Selected Interval)	Average	**11.98**	**0.08**	**26.89**	**42.38**	**5.30**	**3.42**	**20.60**
From 1022.3 to 1023.8	max. Value	14.39	0.08	29.79	45.60	7.04	4.52	22.80
Thickness: 1.5 m	min. Value	7.47	0.07	23.19	40.10	4.52	2.97	16.40
Upper Potash Interval (Selected Interval)	Average	**9.50**	**0.08**	**28.48**	**42.43**	**5.01**	**2.93**	**20.19**
From 1030.4 to 1033.4	max. Value	20.54	0.12	35.05	50.60	7.79	4.49	46.40
Thickness: 3.0 m	min. Value	4.30	0.05	17.46	25.30	2.22	1.37	5.90
Intermediate Potash Interval	Average	**6.69**	**0.03**	**38.63**	**52.57**	**4.97**	**3.01**	**8.26**
From 1059.7 to 1064.6	max. Value	16.38	0.03	48.66	61.40	7.55	4.52	17.10
Thickness: 4.9 m	min. Value	0.22	0.02	28.31	43.70	1.95	1.19	3.10
Intermediate Potash Interval (Selected Interval)	Average	**11.29**	**0.03**	**34.58**	**50.73**	**5.19**	**3.16**	**8.35**
From 1060.7 to 1062.5	max. Value	16.38	0.03	37.61	53.50	5.87	3.60	11.80
Thickness: 1.8 m	min. Value	8.88	0.02	28.31	47.40	4.40	2.71	6.20
Lower Potash Interval	Average	**12.79**	**0.02**	**32.86**	**49.04**	**5.01**	**3.04**	**8.80**
From 1071.5 to 1073	max. Value	18.07	0.02	39.50	53.80	5.84	3.55	12.10
Thickness: 1.5 m	min. Value	6.59	0.02	27.09	45.40	4.22	2.50	5.10

Notes:

1. Chemical analysis conducted by ALS Global (Galway, Ireland)
2. ICP (inductively coupled plasma) quantitative method
3. Intervals are cored intervals (versus true thickness intervals). Conversion to true thickness pending updated structural model. Given the shallow dipping nature of the mineralisation the true thickness correction should not have a material impact on the thicknesses reported.
4. Composite grades calculated as length-weighted averages

Drill hole V18-05 was completed between the Vipasca Investigation Permit and the western edge of Muga permit area (**Figure 1**). The objective accomplished with this exploration drill-hole was to provide a greater degree of confidence that the potash resources extend from Muga to the west, and to understand the continuity of the individual potash intervals within the Vipasca investigation permit.

V18-05 intersected the entire overburden isoclinal sedimentary sequence as expected, entering the evaporitic unit at 710 meters depth, with the development of the hanging-wall salt, the potash layers and the foot-wall salt units. In this intermediate sector, the potash layers are not well developed, therefore the results of this drill-hole were not at the grades expected. Specifically, the Upper Potash Interval yielded 0.9 metres with an average grade of 6.65% K_2O, and the Middle Potash Interval yielded 1.3 metres with a mean grade of 5.79% K_2O, including 0.6 metres with an average grade of 9.31% K_2O. In the case of the Lower Potash Interval, it has only been possible to identify traces of potash.

Given the anomalous results obtained in V18-05, a complementary study has been carried out in this sector, with the aim to obtain the structural configuration of the area, ruling out the possibility that the abnormal results obtained are due to the presence of previous unidentified geological structures, including faults and/or discordances.

The study consisted of combining the data from the latest Geoalcali drilling campaign, including V18-05 core information, with the available 2D seismic information of the area, in order to produce a structural model of the geological units at depth, guided by the seismic profile, and the field work geological study. (**Figure 2**).

With respect to the available data and the work completed, Highfield considers that the poor exploratory results in the area close to the V18-05 are not due to the presence of structural features, but rather reflective of a different stratigraphic part of the evaporitic basin. (**Figure 3**).

Table 2 provides the results from V18-05. Additional geological information can be found in JORC Table Section 1 and 2 attached in this press release.

DDH V18-05 POTASH GRADES (ICP analysis)

		K_2O(%)	MgO(%)	Na_2O(%)	Cl(%)	SO_4(%)	CaO(%)	Water Insolubles
Upper Potash Interval	**Average**	**2.99**	**0.08**	**28.65**	**40.90**	**4.07**	**2.47**	**28.13**
From 777.5 to 779.6	max. Value	14.27	0.10	40.04	59.70	5.00	2.99	48.30
Thickness: 2.1 m	min. Value	0.23	0.03	20.29	26.90	2.97	1.82	5.10
Upper Potash Interval (Selected Interval)	**Average**	**6.65**	**0.06**	**31.09**	**46.30**	**3.85**	**2.30**	**17.03**
From 778.7 to 779.6	max. Value	14.27	0.08	40.04	59.70	4.97	2.92	34.20
Thickness: 0.9 m	min. Value	2.79	0.03	26.29	35.40	2.97	1.82	5.10
Middle Potash Interval	Average	**4.63**	**0.04**	**39.99**	**58.04**	**4.08**	**2.38**	**6.64**
From 820.55 to 821.8	max. Value	12.65	0.07	45.29	62.40	5.63	3.22	10.00
Thickness: 1.3 m	min. Value	0.47	0.03	31.95	52.70	2.43	1.47	2.90
Middle Potash Interval (Selected Interval)	Average	**9.31**	**0.04**	**34.59**	**54.10**	**5.37**	**3.09**	**9.25**
From 820.55 to 821.1	max. Value	12.65	0.05	37.34	55.70	5.63	3.22	10.00
Thickness: 0.6 m	min. Value	6.79	0.03	31.95	52.70	5.18	3.01	8.90
Potash interval From 834.95 to 835.05 Thickness: 0.10 m	Average	1.90	0.03	43.00	61.80	2.79	1.68	4.40
Potash Interval From 866.55 to 866.6 Thickness: 0.05 m	Average	2.94	0.10	37.20	51.60	4.37	2.62	13.60
Potash Interval From 920.8 to 920.9 Thickness: 0.10 m	Average	8.46	0.07	33.83	53.50	5.18	3.06	11.20

Notes:

1. Chemical analysis conducted by ALS Global (Galway, Ireland)
2. ICP (inductively coupled plasma) quantitative method
3. Intervals are cored intervals (versus true thickness intervals). Conversion to true thickness pending updated structural model. Given the shallow dipping nature of the mineralisation the true thickness correction should not have a material impact on the thicknesses reported.
4. Composite grades calculated as length-weighted averages

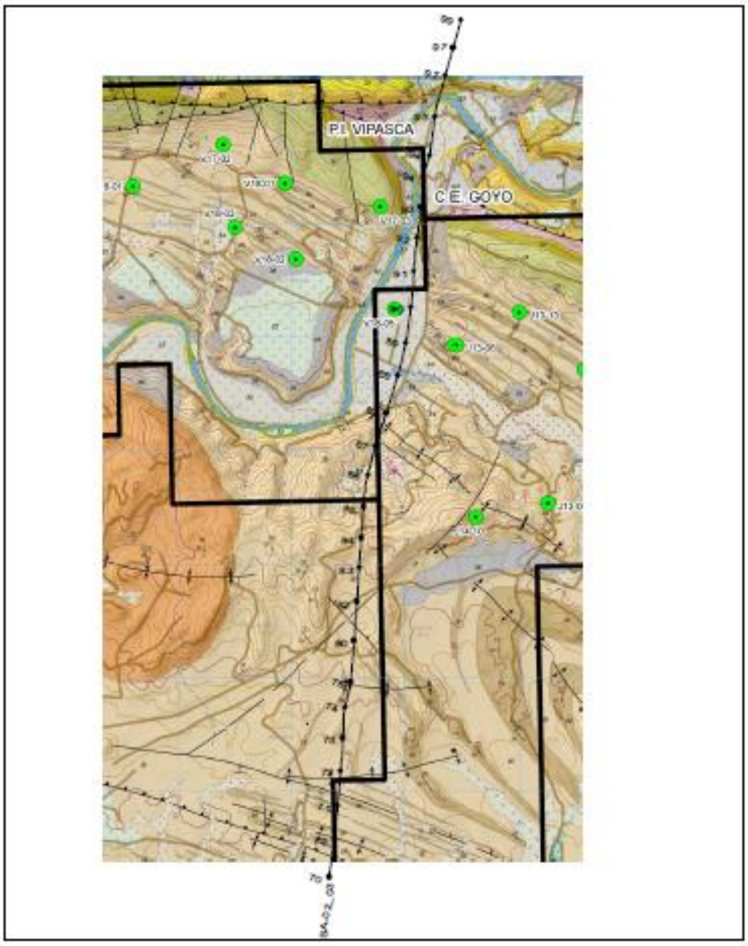

Figure 2: Location of the interpreted seismic profile SA-02 (pt 70-99)

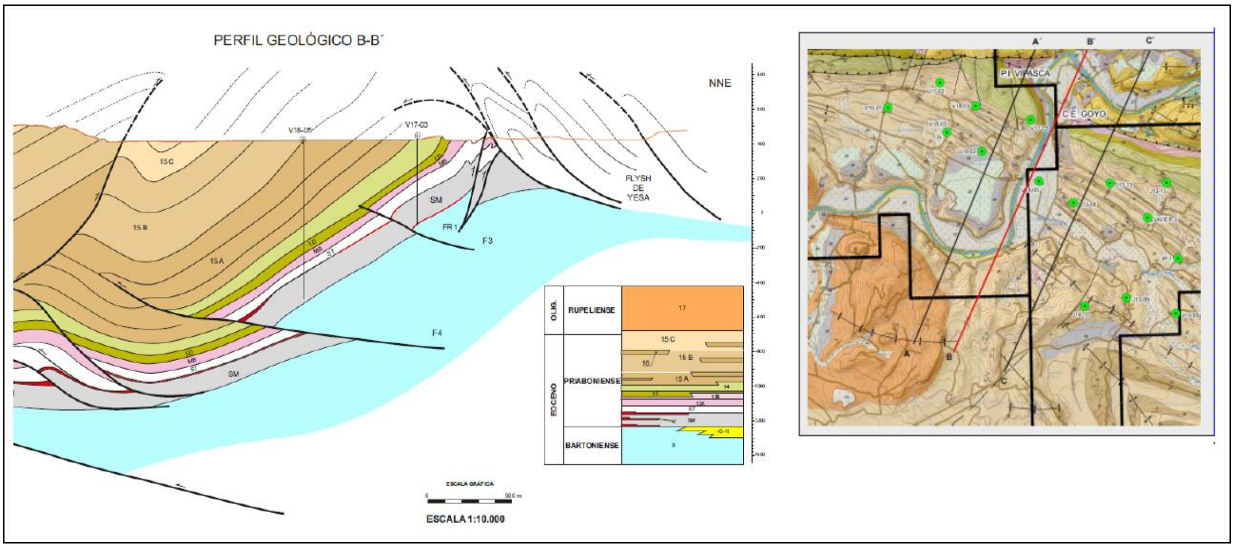

Figure 3: Cross-section of the sector in which the V18-05 drillhole is located.

Sierra del Perdón Tenement Area

Highfield´s 100% owned Sierra del Perdón (“SdP”) Tenement Area (see Figures 4 and 5) is located south east of Pamplona and covers an area of approximately 120km^2. SdP is a brownfield target which previously hosted two potash mines, which operated from the 1960s until the late 1990s and produced nearly 500,000 tonnes of K60 Muriate of Potash “MOP” per annum. The Company is targeting potential for potash exploitation in the other unmined and under explored, areas in the SdP Tenement Area.

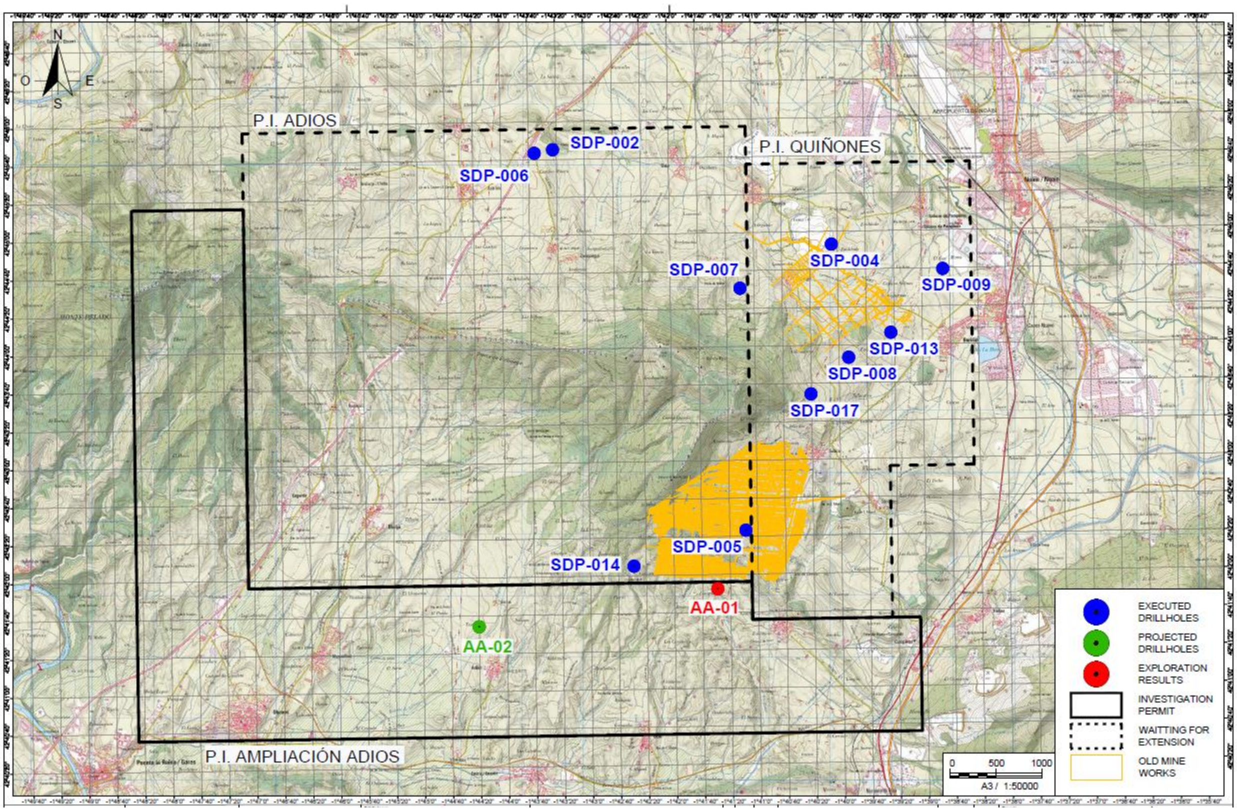

Figure 4: Location of Highfield’s Sierra del Perdón drillholes.

The Company was advised in the fourth quarter of 2018 that the second three-year extension application for the Adiós and Quiñones permits had been rejected by the mining department of the Government of Navarra. The basis of the rejection of the Quiñones and Adiós extension application was that the Company had not completed sufficient drilling and geophysics exploration when compared with what had been committed to in the three-year work plans submitted to the authorities. The Company has obtained legal advice and is continuing an appeal process with regards to this decision. The timing of the appeal process continues to remain uncertain, nonetheless, given the reasons for not being able to perform the work outlined were due to factors outside the Company’s control, the Company remains confident of a positive resolution in due course. During ongoing discussions, the authorities have confirmed that they are continuing to consider the appeal, but no conclusion has yet been reached. Substantive expenditure on further exploration for and evaluation of mineral resources in the Adiós and Quiñones permits is planned subsequent to a positive outcome to the appeal.

The Company has carefully considered the facts and circumstances pertaining to the rejection, its discussions with the authorities, and the legal advice received and has concluded that the continued lack of a resolution to the appeal is not a reflection on the merits of the appeal, nor does it represent a significant change with an adverse effect on the entity. The Company has concluded that the Adiós and Quiñones permits are expected to be renewed, in the form of an extension, on the basis that it has strong arguments that will result in a positive outcome to the appeal lodged on 16 November 2018.

The first drill-hole AA-01 at the Ampliación de Adiós Investigation Permit has been carried out in the tenement (**Figure**). The drill-hole was designed to test continuity of the shallow potash mineralisation towards the south of the former potash operation of Potasas de Subiza.

The drill-hole targeted both sylvinite and carnallite mineralisation seams located ~375 metres below surface. After intersecting the characteristic overburden sedimentary sequence of the Sierra del Perdón area, the drill-hole intercepted potash levels at ~390 metres deep as expected, intersecting the potash sequence, and importantly identifying the three different potash intervals, Upper, Middle and Lower, the last of these intervals being the least developed.

Contrary to what is observed in other areas of the Sierra del Perdón area, in which a well-developed Carnalite interval appears at the top of the Silvinite sequence, in the case of the AA-01 drill-hole, the Carnalite interval has not been intersected. Taking into account the anomalous thickness presented by the silvinitic interval, approximately 9 meters, compared with the average 3.5 meters seen in other sectors of the Sierra del Perdón area, it is believed that the Carnalite interval has been transformed into Sylvine in this area of the deposit.

The Upper Potash Interval yielded 2.1 metres with an average grade of 7.02% K_2O, the Middle Potash Interval yielded 1.5 metres with a mean grade of 14.50% K_2O, and the Lower Sylvinite Interval yielded 0.9 metres with a mean grade of 5.28 % K_2O. The reasons for the poorly developed Lower Sylvinite Interval and the absence of the Carnallite at the top of the potash sequence are not yet well understood. Highfield plans is to drill a second drill-hole which is scheduled in 3.9km to the west of AA-01 in Q3 and Q4 of 2020, AA-02 (**Figure)**. This will provide essential information on this southern sector.

Table 3 provides the results from AA-01 drill-hole. Additional geological information can be found in JORC Table 1 Section 1 and 2 attached to this press release.

DDH AA-01 POTASH GRADES (ICP analysis)

		K_2O(%)	MgO(%)	Na_2O(%)	Cl(%)	SO_4(%)	CaO(%)	Water Insolubles
Upper Potash Interval	**Average**	**7.02**	**0.15**	**29.68**	**39.59**	**4.73**	**3.05**	**23.99**
From 390.8 to 392.9	max. Value	18.61	0.17	33.30	44.10	5.33	3.43	31.70
Thickness: **2.1** m	min. Value	3.38	0.10	26.35	35.40	3.80	2.45	12.90
Upper Potash Interval (Selected Interval)	**Average**	**9.05**	**0.15**	**28.56**	**38.98**	**4.53**	**2.93**	**23.63**
From 390.8 to 392	max. Value	18.61	0.17	31.95	44.10	5.00	3.20	29.80
Thickness: **1.2** m	min. Value	3.38	0.10	26.35	35.40	3.80	2.45	12.90
Middle Potash Interval	Average	**14.49**	**0.10**	**28.75**	**46.02**	**6.51**	**4.06**	**12.18**
From 394.1 to 395.6	max. Value	37.82	0.13	37.07	48.50	9.80	6.00	18.80
Thickness: **1.5** m	min. Value	2.57	0.07	14.29	43.40	5.27	3.32	4.50
Middle Potash Interval (Selected Interval)	Average	**21.32**	**0.08**	**23.79**	**45.37**	**6.97**	**4.32**	**10.20**
From 394.4 to 395.3	max. Value	37.82	0.10	33.57	47.40	9.80	6.00	15.80
Thickness: **0.9** m	min. Value	6.73	0.07	14.29	43.40	5.27	3.32	4.50
Lower Potash Interval	Average	**3.15**	**0.14**	**35.95**	**45.75**	**9.41**	**5.76**	**13.45**
From 397.1 to 398.9	max. Value	10.91	0.17	44.08	54.40	10.70	6.56	22.40
Thickness: **1.8** m	min. Value	0.20	0.12	28.44	38.40	7.19	4.42	5.30
Lower Potash Interval (Selected Interval)	Average	**5.28**	**0.13**	**32.67**	**42.73**	**10.25**	**6.31**	**15.13**
From 397.1 to 398	max. Value	10.91	0.15	38.82	47.80	10.70	6.56	22.40
Thickness: **0.90** m	min. Value	1.82	0.12	28.44	38.40	9.50	5.92	9.50

Notes:

1. Chemical analysis conducted by ALS Global (Galway, Ireland)
2. ICP (inductively coupled plasma) quantitative method
3. Intervals are cored intervals (versus true thickness intervals). Conversion to true thickness pending updated structural model. Given the shallow dipping nature of the mineralisation the true thickness correction should not have a material impact on the thicknesses reported.
4. Composite grades calculated as length-weighted averages

Pintanos Tenement Area

Highfield´s 100% owned Pintanos Tenement Area (**Figure 5**) comprising the three permits of Molineras 1, Molineras 2 and Puntarrón also abuts Muga and covers an area of ~65km^2. The mineralisation is slightly deeper than encountered at Muga and starts at a depth of ~500 metres. The Company is building on potash exploration information from seven drill holes and ten seismic profiles completed in the late 1980s.

The Company has re-initiated the application process for the drilling permit at Molineras 2, following the conclusion of the public consultation period. The Company has responded to all comments received during the consultation period and is now waiting for the award of the permit.

This announcement has been authorised for release by the directors of Highfield Resources Limited.

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About Highfield Resources

Highfield Resources is an ASX listed potash company with three 100% owned tenement areas located in Spain.

Highfield's Muga-Vipasca, Pintanos, and Sierra del Perdón projects are located in the potash producing Ebro Basin in Northern Spain and together cover a project area of more than 277km^2.

Following the granting of a positive environmental permit Highfield is now focusing on securing the Mining Concession and the construction permits necessary to take the Project into the construction phase.

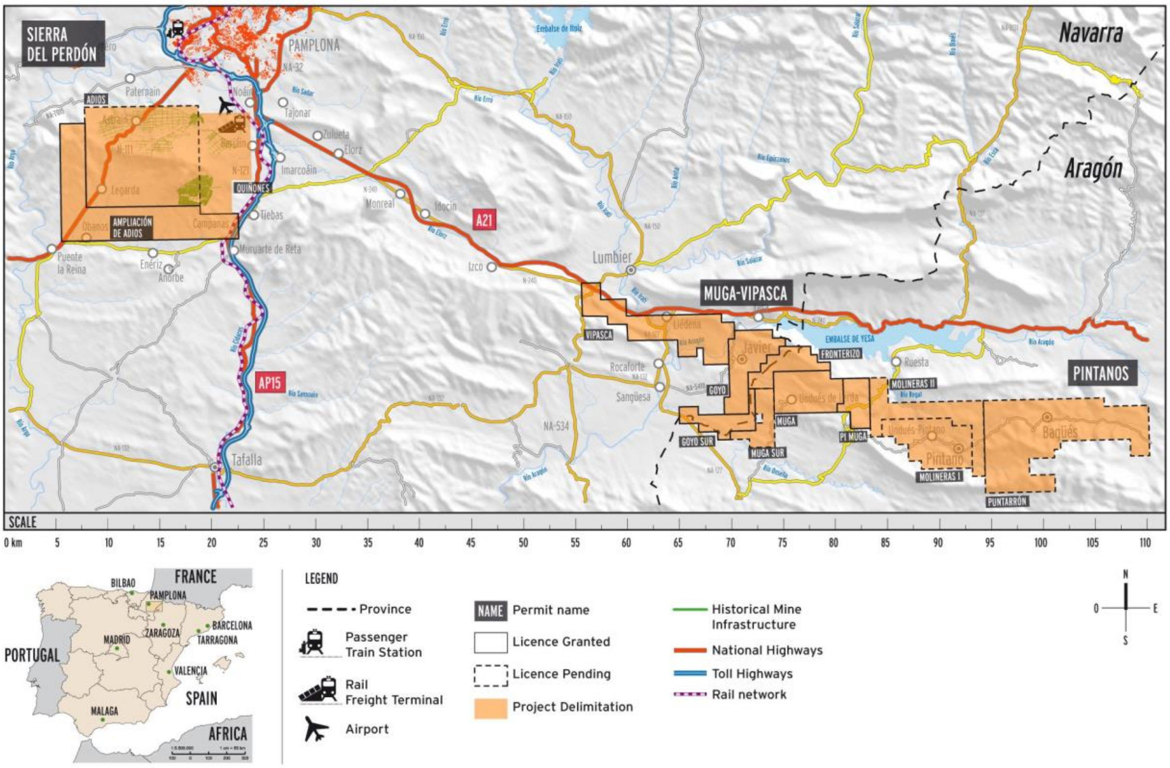

Figure 5: Location of Highfield's Muga-Vipasca, Pintanos and Sierra del Perdón Projects in Northern Spain.

Competent Persons Statement

This ASX release was prepared and authorised by Mr. Richard Crookes (MAusIMM), Chairman of Highfield Resources. The information in this document that relates to the reporting of the Exploration Results for AA-01, V18-03 and V18-05 drill-holes are based on information prepared by Highfield Resources.

The exploration results as presented in Tables 1, 2 and 3 Summary of Drill holes AA-01, V18-03 and V18-05, and the supporting information presented in JORC Table 1 has been reviewed by Ms Anna Fardell, a registered member of the Australian Institute of Geoscientists (6555). Ms Fardell is a full-time employee of SRK Consulting (UK) Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she has 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' (the JORC Code). Ms Fardell has reviewed this release and consents to the inclusion in the release of the matters based on his information in the form and context in which this appears.

Section 1 Sampling Techniques and Data – Vipasca

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.*	• Samples were obtained by diamond core drilling through the potash unit. The full potash seam was sampled where it was intersected. • The core was sampled from lithological boundaries at 0.3 metre downhole intervals.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• HQ diameter core was drilled through the potash units. This diameter meant the drilling could access the potash unit with good core recovery and obtain representative minimum sample volumes. • The core recovery through the potash units is very high, with every intersection greater than 98%. This ensures the samples provide the maximum volume for the drilling technique and have no representative bias due to lack of material or large differences in sample size, relative to the sampled lengths. • Drill hole locations were surveyed using trimble GPS, and by a professional surveyor prior to commencement and post the completion of drilling.
	• *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.*	• Drilling was complete using a saturated brine to limit core loss as result of water based fluid contact with the salt horizons.
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.).*	• V18-03 was diamond drilled vertically from surface to a depth of 1190 m. It was drilled with PQ diameter from surface to 325 m, then with HQ from 415 m to the end of hole (1190 m). • V18-05 was diamond drilled vertically from surface to a depth of 953.0 m. It was drilled with PQ diameter from surface to 307.0 m, then at HQ from 307.0 m to the end of hole (953.0 m).
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• In every drillhole the core was measured by the driller and checked by the geologists at the drill rig after every drill run. This measurement of core recovery and other basic geotechnical measurements such as Rock Quality Designation (RQD) were recorded into an excel logging sheet.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples*	• The drilling was completed through the potash horizons at HQ as drilling conditions were difficult and this was deemed the best way to maximise core recovery. • Drilling through the evaporite horizon was conducted with a saturated brine drilling mud, which aims to minimise dissolution due to the use of water based drilling fluids.
	• *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.*	• The core recovery is over 98% through the potash units which is considered by the CP to be an acceptable level for the reporting of representative exploration results in this case. • No bias between grade and core recovery has been demonstrated within these results.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a*	• Core has been logged for lithology, alteration, mineral assemblage and structure.

Criteria	JORC Code explanation	Commentary
	level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	• Geotechnical parameters logged: length recovery, RQD, angle of bedding, fault/fracture (length, fill and degree).
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography*	• Logging is qualitative in nature. All core was photographed and remaining half core shrink wrapped for preservation.
	• *The total length and percentage of the relevant intersections logged.*	• The total core length of 1190 m for V18-03 metres was logged and photographed. Core was sampled mostly at 0.3 metre intervals (few samples with sylvinite traces were sampled at 0.1-0.2 metre intervals) from 1018.4 m to 1034 m; 1039.3 m to 1040 m; 1041.3 m to 101041.9 m; 1043.8 m to 1045 m; 1046.8 m to 1047 m; 1047.8 m to 1048.1 m ; 1049.75 m to 1051.35 m; 1055.7 m to 1057.8 m ; 1059.7 m to 1064.6.9 m; 1071.5 m to 1073 m; and 1074.2 to 1077.5 m down the hole, a length of 30.2 m. This section represents the whole of the prospective potash unit. This length totalled 110 samples. • The total core length of 953.0 for V18-05 metres was logged and photographed. Core was sampled at 0.3 metre intervals from 777.5m to 779.6m; 820.55m to 821.80m; 834.75m to 835.05m; 866.55m to 866.6m; and 920.8 to 920.9m down the hole, a length of 4.30m. This section represents the whole of the prospective potash unit. This length totalled 31 samples.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• Core is sawn using hydraulic oil as the lubricating agent to minimise core loss. Half the core was retained and shrink wrapped to ensure it is well preserved should further analysis be required. • Half core samples were bagged and secured with plastic ties for shipping to ALS Seville for sample preparation.
	• *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*	• Not applicable.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• All samples were sent to ALS in Seville for sample preparation. The whole sample was dried and crushed to 70% passing -2 mm then a 250 g fraction was pulverised to 85% passing -75 µm.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• Sawing of core was conducted using oil based lubricant to minimise dissolution.
	• *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.*	• Six CRMs were submitted with the samples for V18-03, five additional control samples derived from half core from the same drillhole interval, 1039.4 m to 1039.7 m; 1044.4 m to 1044.7 m; 1050.3 to 1050.6 m; 1064.3m to 1034.6 m; 1072.7 m to 1073 m; from same drill hole and three certified blanks. Two low grade, two medium grade and three high grade CRM (5.025%, 10.525% and 20.95% K^+) were submitted to cover the expected range of mineralisation in the drillhole. Additionally, thirteen crushed duplicates have been resubmitted to ALS Loughrea and thirteen crushed duplicates were sent to SRC Canada. • Two CRMs were submitted with the samples for V18-05, one additional control sample derived from half core from the same drillhole interval, 779.90m to 780.20m from same drill hole and one certified blank. One low grade and one medium grade CRM (4.83% and 10.15% K^+) were submitted to cover the expected range of mineralisation in the drillhole. Additionally, three crushed duplicates were resubmitted to ALS Loughrea and three crushed duplicates were sent to SRC Canada. • The results from the duplicates have not yet been received by the company from the laboratory and therefore no comment on repeatability can be made at this time.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Sample sizes are considered appropriate for the mineralisation type and lithologies sampled. In addition, the quality control samples in V18-03 provide a duplicate check on 3.70% of the sample population which when combined with the other crushed duplicate samples represent a 25.92%, and when combined with the total control samples represents a 37.03% check on the total. This is a good number of samples to check the sampling and analysis and ensures any bias will be highlighted by the quality control checks.

Criteria	JORC Code explanation	Commentary
		• Sample sizes are considered appropriate for the mineralisation type and lithologies sampled. In addition, the quality control samples in V18-05 provide a duplicate check on 4.54% of the sample population which when combined with the other crushed duplicate samples represent a 28.14%, and when combined with the total control samples represents a 33.59% check on the total. This is a good number of samples to check the sampling and analysis and ensures any bias will be highlighted by the quality control checks.
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.*	• All samples were analysed by XRF (for metals and other major constituents), ICP-OES (soluble elements) and gravimetric analysis (insoluble residue) at ALS in Loughrea.
	• *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.*	• No handheld devices were used to analyse the grade or mineralogical composition of the samples for the purposes of this release.
	• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Both Highfield and ALS maintained independent QA/QC programs including the insertion of Certified Reference Material (CRM), duplicates and blanks. • An additional 11.11% check samples were submitted in March 2019 to the "umpire" laboratory – Saskatoon Research Centre (SRC) in Canada. This has provided an additional check on the results from V18-03. V18-05 "umpire" samples are currently being analyzed in Canada. • All the received CRMs showed deviation on key values outside of three deviations from their certified values. They broadly correlated with the values the tight deviations and acceptable values on other control samples do not warrant reanalysis. Duplicates showed acceptable levels of internal agreement in all key elements, K, Mg, Ca, Na, S and insolubles. • The accuracy and precision of the CRM, duplicate and blanks are in the opinion of the CP within acceptable levels for reporting of Exploration Results.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	• ALS Loughrea analysed all check samples using both the ICP-OES methodology and XRF. These methods showed acceptable levels of agreement to support the precision of the testing program for blanks, CRMs and duplicates.
	• *The use of twinned holes.*	• No twin holes have been drilled to date
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• Highfield receives all analysis data directly from the laboratories in electronic format (xls or csv). This is transferred to a master database and is monitored for QA/QC purposes. • SRK checked the transcription from the original laboratory certificate pdfs and found no errors.
	• *Discuss any adjustment to assay data.*	• No adjustments have been made to the analytical results 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.*	• All new locations were surveyed before and after drilling by a licenced surveyor using a differential GPS.
	• *Specification of the grid system used.*	• Grid systems used were European Datum 50, updated to European Terrestrial Reference System 1989 (ETRS89) for compatibility with modern survey information.
	• *Quality and adequacy of topographic control.*	• All new locations were surveyed before and after drilling by a licenced surveyor.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	• The results reported are within 600 metres of previous explorations drillholes in Vipasca, and 600 meters from Muga exploration drillholes.
	• *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.*	• Not applicable.

Criteria	JORC Code explanation	Commentary
	• *Whether sample compositing has been applied.*	• Samples have been composited over the thickness of the identified potash bed for reporting of exploration results.
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.*	• The general strike of geology in the basin is NE-SW orientation. • The drillholes were orientated vertically, broadly perpendicular to the very shallow dipping main potash seam to ensure the true potash seam thickness was intersected.
	• *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.*	• Not applicable.
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody is managed by Highfield. The core is boxed at the rig and transported to a secure facility for logging, photographing and cutting. Following this, samples were bagged and secured with zip locks before they are shipped to ALS laboratories in Seville.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• SRK has completed a review of the drilling, sampling and analytical techniques used and the manner in which the exploration results have been reported and has concluded that these techniques are appropriate to the mineralisation being explored and that the resulting data has been reported in an unbiassed manner.

Section 2 Reporting of Exploration Results – Vipasca

(Criteria listed in the preceding section also apply to this section.)

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 Vipasca tenement was issued as an Investigation Permit (PI) by the Spanish authorities under reference number of 35900 on 11/12/14 and extended on 09/04/18. The permit is due to be renewed for a further 3 years from December 2020. The permit covers a total area of 27.30 Km^2 and the entire Vipasca extension of Muga deposit. • Geoalcali S.L, a wholly owned subsidiary of Highfield Resources Limited, is the permit holder. There are no Joint Ventures, partnerships, royalties or other commitments relating to the Investigation Permit.
	• The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	• Highfield Resources has completed a legal review which concluded its tenure to be secure.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• Potash was first discovered in the Ebro Basin in the Catalonia area in 1912 at Suria after the potash discoveries in Germany (Moore 2012). Salt was first discovered through drilling which subsequently also confirmed the presence of up four potentially economic potash mining horizons with a combined total thickness of between 2.0 and 8.0m (Stirrett and Mayes 2013). The potash horizons in the area were identified over an area of approximately 160 square kilometers (km^2) and at depths of approximately 500m below surface unless they were brought closer to surface by anticlinal or tectonic structures (Stirrett and Mayes 2013). Several deposits were located in the Catalonia area, including Cardona, Suria, Fodina, Balsareny, Sallent, and Manresa. Several of these areas were developed into mines and are all flanked by anticlinal structures. The potash deposits in the Navarre region were not located until later, in 1927, through comparative exploration programmes to the deposits found at Catalonia undertaken largely by E.N. Adaro in 1989 and1990 (Stirrett and Mayes 2013). The exploration efforts later led to the development of a mine near Pamplona and Beriain. • Production at Pamplona began in 1963 with a capacity of 250,000 tonnes per year (tpy) of K_2O. A thick carnallite horizon overlies the sylvinite, so, in 1970, a refinery with the capacity for 300,000 tpy was built to accommodate carnallite from the Esparza (Stirrett and Mayes 2013). Carnallite mining was ceased in 1977. Inclined ramps for the mine were located near Esparza, reaching the centre of the mine, with further shafts located at Beriain, Guendulain and Undiano. In 1982, 2.2 Mt of sylvinite were extracted with an average K_2O grade of 11.7% (Stirrett and Mayes 2013). The operations in Navarre were closed in the late 1990s. • A 2D high-resolution seismic survey was run for POSUSA in August–October 1988, by CGG over eastern Vipasca area, most of what is now Muga Mine project area. This consisted of 9 lines totalling 55 km (Geoalcali, 2012). An additional 2D seismic was run at a later date (unknown) increasing the total available seismic to 16 lines, totalling 87.3 km (RPS 2013). RPS of Calgary, Alberta, Canada, completed a re-interpretation of the 2D historical seismic lines and profiles on behalf of Highfield. The re-interpretation programme was designed to review the overall accuracy of the historical data in terms of good correlation to drillhole data and geological intersections, as well as identify any sub-surface structures that may adversely affect the salt-bearing strata within the project area. A total of 16 lines were reviewed and were tied to wells with historical wireline data from the 2D seismic RPS. The paper copies of the seismic were digitized as the original tapes were unavailable. An historical drilling programme completed in 1989–1990 was outlined in detail by E.N. Adaro (1989–1991) over the eastern edge of Vipasca. E.N. Adaro, the state-owned group tasked with exploration and development of Spain's Mineral Resources, produced detailed reports and "reserve" studies of the Javier-Pintanos area.
Geology	• Deposit type, geological setting and style of mineralisation.	• The geological description below is taken from the Highfield Resources ASX Release dated 24 February 2015 and details the geology of the Javier Pintano Basin in which Vipasca extension in situated. • The Upper Eocene potash deposits occur in the sub-basins of Navarre and Aragón provinces within the larger Ebro Basin (Figure A-1). The Navarrese sub-basins include Sierra del Perdón, Muga-Vipasca (Javier) and adjoining Pintano deposits.

Criteria	JORC Code explanation	Commentary
		This potash deposit contains a 100-m-thick Upper Eocene succession of alternating claystone and evaporites (anhydrite, halite, and sylvite). The evaporites accumulated in the elongated basin at the southern foreland of the Pyrenean range (Busson and Schreiber 1997). The evaporites overlie marine deposits and conclude in a transitional marine to non-marine environment with terrigenous influence. Open marine conditions existed in the Eocene epoch progressing to a more restricted environment dominated by evaporation and the deposition of marl, gypsum, halite, and potassium minerals. Later, tectonism formed narrow anticlines and broad synclines, which created outcrops of the evaporite sequence. The formation of the evaporites is further influenced by the basin restriction, and paleo highs and lows which are perhaps defined by block faulting as well as the main structural basin bounds. • Towards the end of the Eocene epoch, the sedimentation axis migrated south to the Jaca-Pamplona Basin, on which the Oligocene materials were deposited. The pre-evaporitic basin sedimentation occurs in a context of continuous tectonic compression during the Eocene and Oligocene epochs, as synsedimentary tectonics of the end of the orogeny, with pronounced sediment influx. The influence of the turbidites towards the end of the Eocene epoch in the Bartoniense series from the northwest into the basin are indicative of continued subsidence. • Vipasca comprises the West end of the Muga basin. The evaporites are part of the northern limb of Javier-Pintanos synclinal structure with the main axis plunging to the west. The northern limb is compartmented in at least 2 sub-blocks which are separated by an unnamed thrust fault which outcrops in the vicinity of the last developed drill holes. The deposit has a variable dip ranging from 15-40 degrees (º), with a depth from between 40 to 250 m (elevation +500 m). Further drilling is programmed for the next months to check the extension of the deposit • The Vipasca basin is dominated by a SW-NE unnamed fault. This fault was probably active during the precipitation of potash and therefore has influenced final configuration within the basin edge delimiting two different domains where potash is present. • Potash is used to describe any number of potassium salts. By and large, the predominant economic potash is sylvite: potassium chloride (KCl) usually occurring mixed with halite to form the rock sylvinite, which may have a potassium oxide (K_2O) content of up to 63%. Carnallite, a potassium magnesium chloride ($KCl{\bullet}MgCl_2{\bullet}6H_2O$) is also abundant, but has K_2O content only as high as 17%. “Carnallite” is used to refer to the mineral and the rock interchangeably, although “carnallitite” is the more correct terminology for the carnallite and halite mixture. Besides being a source of lower grade potassium, carnallite involves a more complex production process, so it is less economically attractive than is sylvite. • The depositional environment is that of a restricted marine basin, influenced by incipient tectonics coming from the north, causing sea floor subsidence, and/or uplift and sediment input. It is suggested that the Ebro Basin is the result of a combination of reflux and drawdown. Reflux describes a basin isolated from open marine conditions, and thereby characterised by restricted inflow, increased density, and increased salinity. Drawdown is the result of simple evaporation in an isolated basin, and brine concentration and precipitation, consistent with the classic “bulls-eye” model (Garrett 1996). In this case, the Ebro Basin is further influenced by erosion at its edges due to contemporaneous and post-depositional uplift which results in localised shallowing and sediment influx (Ortiz and Cabo 1981) transitioning from marine to continental-type deposits. In the classic “bulls-eye” model, a basin that is cut off from open marine conditions will experience drawdown by evaporation in an arid to semi-arid environment. In the absence of sediment influx, precipitation will proceed from limestone to dolomite to gypsum, and anhydrite to halite. Depending on the composition and influences of the brine at that time, the remaining potassium, magnesium, sulfates, and chlorides will progress from potassium and magnesium sulfates to sylvite and then carnallite. It is proposed herein that the formation of carnallite and sylvite be described as primary and secondary, respectively. • In the Muga Extension of Vipasca Potash Project area, the mineralogy is dominated by sylvinite as it occurs in Muga. The upper potash beds transition to finely banded light brown marls and clays which may exhibit salt veining and distortion as well as

Criteria	JORC Code explanation	Commentary
		influx of dark grey clays and mudstones, representing the transition of the basin from marine to continental via basin-filling. The salts just below the potash tend to be dark grey to black. In some lower beds, halite becomes brownish, sandy to coarsely granular sand and sandstone as sediment influx from the Basin edges. The literature denotes this salt as “sal vieja” or “old salt” (Ortiz and Cabo 1981). The evaporite beds and bands, in general, are separated by fine to very coarse crystallised and recrystallised salts, generally grey, sometimes light-to-medium honey brown or white, with anhydrite blebs, nodules, and clasts. • Potash seams are present in the basin which are sometimes separated by halite beds. These are the Upper Potash Interval (P0, PA and PB seams), the Intermediate Potash Interval (P1 seam) and Lower Potash Interval (P2 seam).
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.	• Analysis information is shown in the body of this release in Tables 2 and 3. • **V18-03:** X:644495.689 Y:4718971.74, RL: 463.807, EOH: 1190m, first appearance of potash: 1019 m • **V18-05:** X:645905,699 Y:4718250.296, RL: 420.1, EOH: 953m, first appearance of potash: 777.50 m • In **V18-03** the three potash intervals are present in this drillhole. Upper Potash Interval appears at 1019.0 m to 1033.70 m, Intermediate Potash Interval appears at 1059.7 to 1064.6, and Lower Potash Interval appears at 1071.5 to 1073 m • In **V18-05** the three potash intervals are present in this drillhole, although Lower Potash Interval only appears in centimetric beds showing traces of sylvinite.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Composites by weighted average were made from the geochemical data to optimise grade and thickness of the mineralised seams in both the new and historical data. • All grades are presented in percentage of K_2O over a selected interval.
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’).	• V18-03 and V18-05 were drilled vertically as to best perpendicularly intersect the expected mineralisation. • Data on bed angle and orientation will be incorporated into geological database to calculate the true thickness of the beds intersected.

Criteria	JORC Code explanation	Commentary
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 maps and diagrams are included in the body of this release.
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 results are included in the body of this release.
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.	• Not applicable.
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Complementary geological studies have been carried out in the eastern area of the Vipasca license and the western part of the Muga license to study the structural geology of the area, ruling out the possibility that the abnormal results obtained are due to the presence of previous unidentified geological structures, such as faults. • Ongoing exploration work is intended for the interpreted extensional areas of the deposit in Vipasca, and its correlation and continuity from Muga. Vipasca is considered a western extension of Muga Project, and some drilling activities are scheduled for 2020, including two additional infill drillholes. This is dependent on Government restrictions for COVID-19.

Section 1 Sampling Techniques and Data – Sierra del Perdón

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.*	• Samples were obtained by diamond core drilling through the potash unit. The full potash seam was sampled where it was intersected. • The core was sampled from lithological boundaries at 0.3 metre downhole intervals.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• HQ diameter core was drilled through the potash units. This diameter meant the drilling could continue and access the potash unit with good core recovery and obtain representative minimum sample volumes. • The core recovery through the potash units is very high, with every intersection greater than 98%. This ensures the samples provide the maximum volume for the drilling technique and have no representative bias due to lack of material or large differences in sample size, relative to the sampled lengths. • Drill hole locations were surveyed using trimble GPS, and by a professional surveyor prior to commencement and post the completion of drilling.
	• *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.*	• Drilling was complete using a saturated brine to limit core loss as result of water based fluid contact with the salt horizons.
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.).*	• AA-01 was diamond drilled vertically from surface to a depth of 422 m. It was drilled with PQ diameter from surface to 298 m, then at HQ from 298 m to the end of hole (422 m).
***Drill sample** recovery*	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• The core was measured by the driller and checked by the geologists at the drill rig after every drill run. This measurement of core recovery and other basic geotechnical measurements such as Rock Quality Designation (RQD) were recorded into an excel logging sheet.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples*	• The drilling was completed through the potash horizons at HQ as drilling conditions were difficult and this was deemed the best way to maximise core recovery. • Drilling through the evaporite horizon was conducted with a saturated brine drilling mud, which aims to minimise dissolution due to the use of water based drilling fluids.
	• *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.*	• The core recovery is over 98% through the potash units which is considered by the CP to be an acceptable level for the reporting of representative exploration results in this case. • No bias between grade and core recovery has been demonstrated within these results.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral*	• Core has been logged for lithology, alteration, mineral assemblage and structure.

Criteria	JORC Code explanation	Commentary
	Resource estimation, mining studies and metallurgical studies.	• Geotechnical parameters logged: length recovery, RQD, bed degree, fault/fracture (length, fill and degree).
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography*	• Logging is qualitative in nature. All core was photographed and remaining half core shrink wrapped for preservation.
	• *The total length and percentage of the relevant intersections logged.*	• The total core length of 422 metres was logged and photographed. Core was sampled at 0.3 metre intervals from 389 m to 400.40 m down the hole, a length of 11.4 m. This section represents the whole of the prospective potash unit. This length totalled 38 samples.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• Core is sawn using hydraulic oil as the lubricating agent to minimise core loss. Half the core was retained and shrink wrapped to ensure it is well preserved should further analysis be required. • Half core samples were bagged and secured with plastic ties for shipping to ALS Seville for sample preparation.
	• *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*	• Not applicable.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• All samples were sent to ALS in Seville for sample preparation. The whole sample was dried and crushed to 70% passing -2 mm then a 250 g fraction was pulverised to 85% passing -75 µm.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• Sawing of core was conducted using oil based lubricant to minimise dissolution.
	• *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.*	• Two CRMs were submitted with the samples for AA-01, one additional control sample derived from half core from the same drillhole interval, 400.1m to 400.4m and one certified blank. A low grade and high grade CRM (5.15%, and 20.9% K^+) were submitted to cover the expected range of mineralisation in the drillhole. Additionally, four crushed duplicates were resubmitted to ALS Loughrea, and five crushed duplicates were sent to SRC Canada.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Sample sizes are considered appropriate for the mineralisation type and lithologies sampled. In addition, the quality control samples provide a duplicate check on 2.63% of the sample population which when combined with the other control samples represents a 10.52% check on the total. This is a good number of samples to check the sampling and analysis and ensures any bias will be highlighted by the quality control checks.
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.*	• AA-01 was analysed by XRF (for metals and other major constituents), ICP-OES (soluble elements) and gravimetric analysis (insoluble residue) at ALS in Loughrea.
	• *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.*	• No handheld devices were used to analyse the grade or mineralogical composition of the samples for the purposes of this release.
	• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Both Highfield and ALS maintained independent QA/QC programmes including the insertion of Certified Reference Material (CRM), duplicates and blanks. • An additional 13.15% check samples have been submitted in March 2020 to the "umpire" laboratory – Saskatoon Research Centre (SRC) in Canada. This will provide an additional check on the results from this drill hole. • All CRMs showed deviation on key values outside of three deviations from their certified values. They broadly correlated with the values the tight deviations and acceptable values on other control samples do not warrant reanalysis. • Duplicates showed acceptable levels of internal agreement in all key elements, K, Mg, Ca, Na, S and insolubles. • The accuracy and precision of the CRM, duplicate and blanks are in the opinion of the CP within acceptable levels for reporting.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	• ALS Loughrea analysed all check samples using both the ICP-OES methodology and XRF. These methods showed acceptable levels of agreement to support the precision of the testing program for blanks, CRMs and duplicates.
	• *The use of twinned holes.*	• No twinned holes have been drilled to date.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• Highfield receives all analysis data directly from the laboratories in electronic format (xls or csv). This is transferred to a master database and is monitored for QA/QC purposes. • SRK checked the transcription from the original laboratory certificate pdfs and found no errors.
	• *Discuss any adjustment to assay data.*	• No adjustments have been made to the results as obtained 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.*	• All new locations were surveyed before and after drilling by a licenced surveyor using a differential GPS.
	• *Specification of the grid system used.*	• Grid systems used were European Datum 50, updated to European Terrestrial Reference System 1989 (ETRS89) for compatibility with modern survey information.
	• *Quality and adequacy of topographic control.*	• All new locations were surveyed before and after drilling by a licenced surveyor.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	• The results reported are within 250 metres of mine workings.
	• *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.*	• Not applicable.
	• *Whether sample compositing has been applied.*	• Samples have been composited over the thickness of the identified potash bed for reporting of exploration results.
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.*	• The general strike of geology in the basin is NE-SW orientation. • The drillhole was orientated vertical which is broadly perpendicular to the very shallow dipping potash seam to ensure the true potash seam thickness was intersected.
	• *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.*	• Not applicable.
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody is managed by Highfield. The core is boxed at the rig and transported to a secure facility for logging, photographing and cutting. Following this, samples were bagged and secured with zip locks before they are shipped to ALS laboratories in Seville.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• SRK has completed a review of the drilling, sampling and analytical techniques used and the manner in which the exploration results have been reported and has concluded that these techniques are appropriate to the mineralisation being explored and that the resulting data has been reported in an unbiassed manner.

Section 2 Reporting of Exploration Results – Sierra del Perdón

(Criteria listed in the preceding section also apply to this section.)

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 Sierra del Perdón tenements were issued as an Investigation Permit (PI) by the Spanish authorities: Quiñones was issued as a PI under reference number of 35760 on 07/08/2012 and extended on 02/10/2015. Adiós was issued as a PI under reference number of 35770 on 07/08/2012 and extended on 02/10/2015. Ampliación Adiós was issued as a PI under reference number of 35880 on 14/02/2014 and extended on 13/06/2017. The Adiós and Quiñones permits were due to be renewed for a further 3 years from August 2018, however this extension has been rejected by the Mining Department of Navarra. The Company is progressing an appeal process, and it is confident of a positive resolution. Ampliación de Adiós permit is due to be renewed for a further 3 years from February 2020. The PIs cover a total area of 123,18 Km^2 and the entire Sierra del Perdón deposit. • Geoalcali S.L, a wholly owned subsidiary of Highfield Resources Limited, are the permit holders. There are no Joint Ventures, partnerships, royalties or other commitments relating to the Investigation Permit.
	• The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	• Highfield Resources have completed a legal review which concluded its tenure to be secure.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• Potash was first discovered in the Ebro Basin in the Catalonia area in 1912 at Suria after the potash discoveries in Germany (Moore 2012). Salt was first discovered through drilling which subsequently also confirmed the presence of up four potentially economic potash mining horizons with a combined total thickness of between 2.0 and 8.0m (Stirrett and Mayes 2013). The potash horizons in the area were identified over an area of approximately 160 square kilometers (km^2) and at depths of approximately 500m below surface unless they were brought closer to surface by anticlinal or tectonic structures (Stirrett and Mayes 2013). Several deposits were located in the Catalonia area, including Cardona, Suria, Fodina, Balsareny, Sallent, and Manresa. Several of these areas were developed into mines and are all flanked by anticlinal structures. The potash deposits in the Navarre region were not located until later, in 1927, through comparative exploration programmes to the deposits found at Catalonia undertaken largely by E.N. Adaro in 1989 and1990 (Stirrett and Mayes 2013). The exploration efforts later led to the development of a mine near Pamplona and Beriain. • The Sierra del Perdón Potash Project represents the westernmost potash deposit of Navarre basin. The deposit was discovered in 1929 based on the assay of brines sourced from Guendulain springs area, 5.5km southwest of Pamplona City. On June 23, 1929, the first drill hole completed intersected 9m of potash with a mean grade of 13.92% K_2O at a depth of 78m. Additional regional exploration was begun in Navarre, first by the Spanish government with five holes across the area; one each in Pamplona, Subiza, Guendulain, Javier and Tafalla. This was followed by more detailed work in the Sierra del Perdón area beginning with E.N. Adaro (historical drill holes 1 to 21), probably conducted in the 1950s, and then by Potasas de Navarra, SA (historical drill holes 22 to 25). • Production at Pamplona began in 1963 with a capacity of 250,000 tonnes per year (tpy) of K_2O. A thick carnallite horizon overlies the sylvinite, so, in 1970, a refinery with the capacity for 300,000 tpy was built to accommodate carnallite from the Esparza (Stirrett and Mayes 2013). Carnallite mining was ceased in 1977. Inclined ramps for the mine were located near Esparza, reaching the centre of the mine, with further shafts located at Beriain, Guendulain and Undiano. In 1982, 2.2 Mt of sylvinite were extracted with an average K_2O grade of 11.7% (Stirrett and Mayes 2013). The operations in Navarre were closed in the late 1990s. • In 1983, a 2D seismic survey was run for E.N. Adaro by CGG over the Sierra del Perdón property (E.N. Adaro 1985 a and b). This consisted of 22 lines totalling 111 km. Earlier work included a seismic campaign in 1963 and a minie-sosie (a shallow seismic survey undertaken using a vibration-rammer source) campaign in 1979 and a vibrosesimic program by Otono in 1981. The resulting structure maps for both the top ("techo") of salt (base of Marl), with major faults, were developed by CGG in combination with the regional seismic records, field maps, satellite imagery and drill

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		hole data. Additional surfaces identified at that time include the unconformity at the Miocene conglomerates, the base of the Galar Sandstone and the resulting isopachs. In addition, early work identified an area of possible erosion in the upper salt along the interpreted anticline. The potash-bearing zones lack any velocity/density contrasts within the salt; it is not possible to detect potash or map the structure of the zone directly.
Geology	• Deposit type, geological setting and style of mineralisation.	• The geological description below is taken from the Highfield Resources ASX Release dated 7 April 2015 and details the geology of the Sierra del Perdón Basin. • The Upper Eocene potash deposits occur in the sub-basins of Navarre and Aragón provinces within the larger Ebro Basin (Figure A-1). The Navarrese sub-basins include Sierra del Perdón, Muga-Vipasca (Javier) and adjoining Pintano deposits. This potash deposit contains a 100-m-thick Upper Eocene succession of alternating claystone and evaporites (anhydrite, halite, sylvite and carnallite). The evaporites accumulated in the elongated basin at the southern foreland of the Pyrenean range (Busson and Schreiber 1997). The evaporites overlie marine deposits and conclude in a transitional marine to non-marine environment with terrigenous influence. Open marine conditions existed in the Eocene-Oligocene epochs progressing to a more restricted environment dominated by evaporation and the deposition of marl, gypsum, halite, and potassium minerals. Later, tectonism and resulting salt deformations formed broad anticlines, synclines and overturned beds, which created outcrops of the evaporite sequence. The Sierra del Perdón sub-basin is notably different from the eastern Javier Pintano basins, with predominantly carnallite mineralisation overlying sylvinite, suggesting a more immature diagenesis because carnallite is considered primary and sylvinite secondary. The formation of the evaporites is further influenced by the basin restriction, and paleo highs and lows which are perhaps defined by block faulting as well as the main structural basin bounds. • The different basins are separated by orogenic events developing in the north and south as turbidite basin carbonate platforms. Towards the end of the Eocene epoch, the sedimentation axis migrated south to the Jaca-Pamplona Basin, on which the Oligocene materials were deposited. The pre-evaporitic basin sedimentation occurs in a context of continuous tectonic compression during the Eocene and Oligocene epochs, as synsedimentary tectonics of the end of the orogeny, with pronounced sediment influx. The influence of the turbidites towards the end of the Eocene epoch in the Bartoniense series from the northwest into the basin as the Belsué Formation is indicative of continued subsidence. • At the east end of the basin, the evaporite levels crop out, and the evaporites are largely dissolved, exhibiting the remnants of the upper banded clays which unconformably overlie the Pamplona Marls. In some cases they are altered to gypsum and fibrous halites. The evaporites are part of a synclinal structure with the main axis plunging to the west. The syncline is compartmented in 3 sub-blocks which are separated by faults. The northern edge of the syncline is usually affected by the erosion with an inclination towards the south. The deposit has a gentle slope of 12 degrees (°), with a depth from between 60 and 70 m (elevation +700 m) to 1,100 m (elevation –400 m) in a north-south extension of 5 to 6 km. Oligo-Miocene conglomerates unconformably overlie the southern flank. • The Sierra del Perdón Basin is dominated by the SW-NE fault system named, from the south to the north, Falla (fault) de Subiza and Falla de Esparza, with several unnamed but numbered faults in between the major ones. The faults are pre-evaporitic and therefore have influenced deposition within the basin and driven the historic mine advance. The faulted blocks are uplifted in the north (Falla Esparza) and the SE (Falla Subiza) and downdropped in the center which represents the depocenter. • Displacement along the Esparza Fault is approximately 300m, while along the Subiza Fault this is between 600m and 800m (Menendez 1971; del Valle 1978) and the area has been separated into mining blocks, Guendulain, Beriain, Subiza and Undiano, delineated by these faults. An additional area lies between the major faults and represents the basin's synclinal axis but this has not been mined because it plunges and deepens. No drill holes have penetrated the salts so the depth of syncline is interpreted through historic seismic records. This area may also represent

Criteria	JORC Code explanation	Commentary
		an offset similar to what is seen in the east, the Flexura de Ruesta that divides the Javier and Pintano sub-basin. [Empresa Nacional Adaro Investigaciones Mineras {E.N. Adaro} 1988–1991]. An anticline interpreted from the historic seismic records crosses the basin NW-SE and may define an area where the upper salt has been eroded. • Potash is used to describe any number of potassium salts. By and large, the predominant economic potash is sylvite: potassium chloride (KCl) usually occurring mixed with halite to form the rock sylvinite, which may have a potassium oxide (K_2O) content of up to 63%. Carnallite, a potassium magnesium chloride ($KCl•MgCl_2•6H_2O$) is also abundant, but has K_2O content only as high as 17%. "Carnallite" is used to refer to the mineral and the rock interchangeably, although "carnallitite" is the more correct terminology for the carnallite and halite mixture. Besides being a source of lower grade potassium, carnallite involves a more complex production process, so it is less economically attractive than is sylvite. • The depositional environment is that of a restricted marine basin, influenced by eustasy, sea floor subsidence, and/or uplift and sediment input. It is suggested that the Ebro Basin is the result of a combination of reflux and drawdown. Reflux describes a basin isolated from open marine conditions, and thereby characterised by restricted inflow, increased density, and increased salinity. Drawdown is the result of simple evaporation in an isolated basin, and brine concentration and precipitation, consistent with the classic "bulls-eye" model (Garrett 1996). In this case, the Ebro Basin is further influenced by erosion at its edges due to contemporaneous and post-depositional uplift which results in localised shallowing and sediment influx (Ortiz and Cabo 1981) transitioning from marine to continental-type deposits. In the classic "bulls-eye" model, a basin that is cut off from open marine conditions will experience drawdown by evaporation in an arid to semi-arid environment. In the absence of sediment influx, precipitation will proceed from limestone to dolomite to gypsum, and anhydrite to halite. Depending on the composition and influences of the brine at that time, the remaining potassium, magnesium, sulfates, and chlorides will progress from potassium and magnesium sulfates to sylvite and then carnallite. It is proposed herein that the formation of carnallite and sylvite be described as primary and secondary, respectively. • In the Sierra del Perdón Potash Project area, the mineralogy is dominated by carnallite over sylvinite, which is medium red-orange and white, largely coarse crystalline in bands and in heavily brecciated beds containing high levels of insoluble material, largely fine-grained clays, anhydrite, and marl. The alternation from carnallite to sylvinite is not always complete and may vary from one bed to the next but it always occurs in the lower part of the sequence. The upper potash beds transition to finely banded light brown marls and clays which may exhibit salt veining and distortion as well as influx of dark grey clays and mudstones, representing the transition of the basin from marine to continental via basin-filling. The salts just below the potash tend to be dark grey to black. In some lower beds, halite becomes brownish, sandy to coarsely granular sand and sandstone as sediment influx from the Basin edges. The literature denotes this salt as "sal vieja" or "old salt" (Ortiz and Cabo 1981). The evaporite beds and bands, in general, are separated by fine to very coarse crystallised and recrystallised salts, generally grey, sometimes light-to-medium honey brown or white, with anhydrite blebs, nodules, and clasts. • Three potash seams are present in the basin which are sometimes separated by halite beds. These are the Upper Carnallite Layer (CU), the Lower Carnallite Layer (CL) and the Sylvinite Layer (SYL).
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	• Analysis information is shown in the body of this release in Table 2. • **AA-01:** X: 607170.203, Y:4728096.130, RL: 620.1 • The drillhole dips at 90, with an azimuth of 000. • Hole total length is 422 m intercepting first appearance of potash at 826.35 m. • The three potash seams are present in this drillhole. Upper Silvinite interval appears at 390.8 to 392.9 m, Middle Silvinite interval appears at 394.1 to 395.6 m and the Lower Sylvinite interval appears at 397.1 to 398 m.

Criteria	JORC Code explanation	Commentary
	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.	
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Composites by weighted average were made from the geochemical data to optimise grade and thickness of the mineralised seams in both the new and historical data. • All grades are presented in percentage of K_2O over a selected interval.
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').	• AA-01 is drilled vertically as to best perpendicularly intersect the expected mineralisation. • Data on bed angle and orientation will be incorporated into geological database to calculate the true thickness of the beds intersected.
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 maps and diagrams are included in the body of this release.
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 results are included in the body of this release.
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	• Not applicable.

Criteria	JORC Code explanation	Commentary
	rock characteristics; potential deleterious or contaminating substances.	
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Ongoing exploration work is intended for the interpreted extensional areas of the deposit, western extent of the Sierra del Perdón Project, additional drillholes are planned in the following months in order to confirm the extension of the ore deposit.