

Appendix B Polyhalite Information

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NYMNPA

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THE CONVERSION OF THE BOULBY MINE TO A POLYHALITE MINE AND POTASSIUM/SULPHUR FERTILISER PRODUCER

Introduction:

The Boulby mine has been providing UK agriculture and chemical industries with the essential element potassium and salt since 1976. While the mine infrastructure has been fully maintained with up-to-date production methods and capability, the seams of potassium ore have been becoming more and more difficult and expensive to mine, relative to the market value of the materials produced from the ore.

In anticipation of this pressure on the profitability of the mine as a simple source of potash, the company Cleveland Potash Ltd, now owned by ICL, set out in 1999 to investigate the market potential for a new mineral, polyhalite, the seam of which lay about 200 metres below the potassium ore in the existing mine. Samples of this mineral were taken and a series of greenhouse and field trials undertaken to establish whether the mineral could be used to provide for a UK demand for the nutrients it contained, namely potassium, sulphur, calcium and magnesium. The mining of the salt which is essential for the UK market would be unaffected and would continue as before.

Polyhalite, the new mineral:

The agronomic trials confirmed that the product would be an excellent source of these four nutrients, and particularly as a source of plant-available sulphur, as sulphate, virtually the whole UK agricultural consumption of which is currently being imported. Following these successful trials and market appraisal the company has invested many millions of pounds to expand the underground infrastructure to access the mineral and to process it into potentially commercial products.

The assessments carried out confirmed some key features of polyhalite as a fertiliser:

- It contains 4 of the 6 macronutrients required by crops, an adequate supply of which is ensured by their application as fertilisers.
- These four nutrients are uniquely found together in polyhalite, all being essential for UK crops.
- Polyhalite dissolves fully in moist soil, so making its nutrients available for uptake by the roots.
- However polyhalite dissolves at a • much slower rate than other commercial sources of the nutrients it contains, with this rate of nutrient release being much closer to the extended period of uptake of the nutrients by the growing crop. Measurements of the rates of dissolution of some sulphatesupplying fertiliser materials. including the commercial polyhalite 'Polysulphate[™]', product were made in 2016 by the University of Nottingham.





- Polyhalite requires no chemical processing in its preparation for use as a fertiliser, making it suitable for both conventional and organic use.
- Using accepted standard protocols, polyhalite is calculated to have an exceptionally small carbon footprint of ~0.04 kg CO₂e/kg product.
- None of the four constituent nutrients has any identified negative environmental impact.

Potential for PolysulphateTM:

Having confirmed its value and potential as a fertiliser product the company registered the brand name 'PolysulphateTM'. The inclusion of 'sulphate' in the name is to take advantage of the high sulphate content of polyhalite, and to establish it in the UK market as a multinutrient fertiliser, but primarily as a sulphur source. In recent years, as the Clean Air Act has had its effect, the anthropogenic emissions of sulphur dioxide have been reduced to almost insignificant levels. Previously the

deposition of sulphate from atmosphere provided the more than sufficient sulphur for crops and grass, sulphur being an essential constituent of all proteins. However, as the deposition of sulphur has declined, so the need to apply fertiliser sulphur has developed, to the extent that the consumption of fertiliser sulphur (measured as SO_3) now exceeds that of phosphorus (as P₂O₅).



Phosphate, potash and sulphur consumption in GB '000 t Phosphate - P2O5 Potash - K2O nutrient 400 350 300 250 200 150 100 50 0 2014/15 2007/08 2009/10 2011/12 2012/13 2013/14 2015/16 2017/18 2018/19 2005/06 2008/09 2002/03 2004/05 2006/07 2010/11 2016/17 001/02 2003/04

This new demand for sulphate fertiliser has been met almost entirely by imports of processed ammonium sulphate, which is predominantly a by-product of the plastics industry. The company considers that a reliance on the imported by-product of another industry for the supply of an essential fertiliser for UK agriculture carries some risk, especially at a time when there is pressure on the plastics industry which could lead to different production processes with no ammonium sulphate by-product. It was clear from the agronomic trial work that Polysulphate could fully and reliably satisfy the UK demand for fertiliser sulphur, potentially for approximately >700,000 tonnes of Polysulphate, and in addition would provide significant export opportunities. This Polysulphate use would also satisfy approximately 30% of the GB demand for the essential nutrient potassium.

Supply of potassium:

While the use of Polysulphate primarily as a source of sulphur would not alone fully satisfy the UK requirement for potassium fertiliser, it offered a unique opportunity to produce an attractive combined sulphur/potassium fertiliser by utilising the company's existing compaction facilities to combine the inevitable proportion of fine polyhalite, which results from crushing the ore, with potassium fertiliser fines which are also produced by ICL, the parent company.

The co-application of potassium with sulphate ensures the availability of fresh supplies of these two macronutrients to crops, which require them to be available together through the growing season, as illustrated in the following chart. A similar pattern of uptake is seen for all major UK crops.



This combination product, commercially named 'PotashpluS[™]', has been tested in field trials and is proving to be an attractive fertiliser for UK fertiliser suppliers and farmers. The company anticipate that this product has the potential to satisfy the UK demand for potassium fertiliser previously supplied by Boulby mine's potash products (mainly muriate of potash [MOP], and equivalent to approximately 500,000 tonnes of PotashpluS) together with the associated crop sulphur requirement.

Environmental benefit:

A significant environmental benefit will result from the replacement of ammonium sulphate as the principal source of fertiliser sulphur in the UK because there are potentially large losses of ammonia from the use of this fertiliser, especially on calcareous soils with a pH above 7.5. It is estimated from soil analysis results that about 40% of UK arable soils have a pH >7.0, and that if the use of ammonium sulphate as the source of sulphur on these soils was changed to using Polysulphate there could be a reduction of about 9% in the emissions of ammonia. If all sulphur application using ammonium sulphate were to be replaced by Polysulphate there could be a reduction of about 17% of the national ammonia emissions from mineral fertilisers, with the balance emanating from the use of urea nitrogen In the 2015 UNECE "Framework Code for Good Agricultural Practice for Reducing fertiliser. Ammonia Emissions" there is a specific relevant recommendation, although not yet a requirement, thus: 'On calcareous soils (pH > 7.5), do not use ammonium sulphate fertilizers if rapid incorporation, injection into the soil, immediate irrigation or the use of polymer coated fertilizer is not possible, but seek alternative sources of nitrogen and sulphur'. The UK "Code of Good Agricultural Practice (COGAP) for Reducing Ammonia Emissions" (2018) also has a similar recommendation to: 'avoid topdressing ammonium sulphate (where incorporation is not possible) on calcareous soils (pH > 7.5)['].

Chris Dawson and Associates, October 2019.



Multi-nutrient fertilizer naturally the best choice in field to increase yield



Mined in the UK, ICL is the first – and only – producer in the world to mine polyhalite, marketed as Polysulphate.

S

48% SO₃ (19.2% S) 14% K₂O (11.6% K) 8

Ng

6% MgO (3.6% Mg) 2

Ca

17% CaO (12.2% Ca)

Polysulphate is a registered trademark of ICL

The need for sulphur application

Sulphate is now established as a major fertiliser requirement for arable crops and grassland. Yet most farmland never receives a routine application.

Sulphur deficiency is now widespread and in the UK ,for example, yield response to sulphate applications in winter wheat can be up to 30% in some cases, and averages 6%. In brassica crops the benefit is greater, with trials showing winter oilseed rape can give a yield response of as much as 80%. A recent note 'Sulphur for cereals and oilseed rape' has been published in the UK by the HGCA¹.



% AREA OF SOME GB CROPS RECEIVING SULPHUR

Despite this, sulphate applications to crops remain low, however. Only 42% of cereal crops receive routine applications. In oilseed rape, despite the established benefits, only 65% of crops receive the sulphate they need. Although nearly all crops would benefit, it is possible that applications have been restricted through a lack of cost-effective, easily spread sulphate fertiliser.

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¹ http://www.hgca.com/crop-management/nutrient-management.aspx

Historically, in industrialised countries arable crops and grassland had never required sulphate applications. Coal-burning had always ensured plenty of sulphur was supplied via atmospheric deposition.

Regulation has ensured this deposition is now a fraction of what it used to be. As a result, large areas of farmed land are sulphur deficient, particularly those with lighter soils or lower rainfall.



SULPHUR EMISSIONS (AS SO₂) IN SOME W EUROPEAN COUNTRIES UNECE/EMEP, 2010

Nitrogen (N) and sulphur (S) are both essential constituents of plant and animal protein, so now that sulphur is no longer freely available from the atmosphere, wherever nitrogen fertilisers are applied there is likely to be a need for a balancing sulphate fertiliser to ensure yield and quality.

Legumes such as peas, beans, alfalfa/lucerne and clover, which rely on atmospheric nitrogen but are now deprived of similar sulphur, will now almost certainly respond to a sulphate fertiliser.

This booklet introduces a sulphate fertiliser, Polysulphate. This new product is mined in the UK, and with 48% SO_3 , provides a reliable and readily available new source of sulphate.

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Livestock requirements

Like arable crops, grassland needs sulphate fertiliser – it's a vital input to ensure a healthy ruminant diet. Even where manure and slurry are returned to the land, extra applications are often needed.

In the UK, only around 10% of grassland currently receives sulphate fertiliser. But a shortage will reduce grass yield and efficient nitrogen utilisation, increase nitrate loss and reduce sugar content and digestibility². Grass grown for silage is particularly liable to sulphur deficiency.

² G. Fisher, J. Buss *et al.*, 2011, Grassland Report, British Grassland Society, UK

As with arable crops, grass also requires a balance between nitrogen and sulphur for its protein content, and a lack of sulphur will lead to reduced yields and to increased levels of non-protein nitrogen in the feed (see chart).

BENEFICIAL EFFECT OF S-FERTILISATION ON NON-PROTEIN N CONTENT OF GRASS

25 $R^2 = 0.85324$ 20 N : S ratio in grass 15 10 5 0 1.2 1.0 0.8 0.2 1.4 0.6 0.4 Non-protein nitrogen content - NPN %

Source: Baker A.S. et al. Sulphur Inst J. 9(1), 14-16

Research on silage carried out by IGER at North Wyke (now part of Rothamsted Research, UK) found dry matter yields increased by 35% over three cuts on sandy loam soil where sulphate was applied³. Nitrate losses were cut by up to 82%, while the true protein and soluble sugars content of the silage were boosted by 25% and 30% respectively.

Perhaps even more importantly, the microbes in the rumen also need the correct balance of nitrogen and sulphur. If the grass is short of sulphur they will not be able to use all of its potential feed value. This means that the actual digestibility (D-value) of the feed is reduced and part of the feed value is wasted (see charts).

³ L. Brown, D. Scholefield *et al.*, 2000, The effect of sulphur application on the efficiency of nitrogen use in two contrasting grassland soils, *Journal of Agricultural Science*, Vol 135

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DAILY LIVEWEIGHT GAIN OF LAMBS INCREASES AS FEED N:S RATIO IMPROVES

Source: Rendig and Weir, J. Anim. Sci. 16(2)



IMPROVED N:S RATIO INCREASES D-VALUE OF FEED FOR DAIRY COWS *Source: Bouchard and Conrad, J. Dairy Sci.* 56



Sulphur from manure and slurry

Farmyard manure and slurry contain significant quantities of sulphur. When fresh much of this becomes available to the plant. But in storage the activity of anaerobic bacteria can reduce the sulphate to sulphide and combine it into organic complexes. These cannot be utilised by plants, but gradually oxidise back to sulphate over time.

There is little reliable data on the actual availability of sulphur in stored manures, so it is therefore best to consider it as contributing to overall soil reserves, rather than supplying sufficient nutrient for the current crop.

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Sulphur in soil and in the plant

Sulphate behaves like nitrate in the soil. In the plant nitrogen and sulphur are both essential building blocks for proteins. Sulphur deficiency will severely reduce the efficient use of nitrogen and limit protein synthesis.

Sulphur can only be taken up by plants from the soil solution as sulphate. As with readily-available nitrate, it can be liable to loss through leaching. Spring application of sulphate fertiliser is therefore recommended so that the plant can take it up during the period of active growth, as with nitrate. Sulphur is required together with nitrogen for the formation of proteins and uptake timings are similar.



Elemental sulphur

While sulphate fertiliser is immediately available to the crop, applications of elemental sulphur must be converted to sulphate by bacterial activity in the soil before it becomes available. The time taken for this oxidation is unpredictable and may take many months, so the sulphate required by the crop may not be available when needed.

Protein synthesis

Sulphur is required for many growth functions in plants – like nitrogen it is principally an essential constituent of protein. There is therefore a close relationship between the quantities of nitrogen and sulphur in crops, with most taking up about 1kg of sulphur (2.5kg SO₃) for every 12kg of nitrogen.

60 250 Wheat & potato – kg SO₃/ha 50 200 40 Cabbage – kg SO 150 30 100 20 Wheat Potato 50 10 Cabbage 0 14 15 16 9 8 10 11 12 13 Week of sampling

SO₃ UPTAKES BY WHEAT, POTATO AND CABBAGE DURING THE GROWING SEASON

Brassica crops, such as oilseed rape, cabbage and kale, require much more sulphate. They need extra sulphur for the production of glucosinolates, which are used within the plants as a defence mechanism.



Once taken up, unlike nitrogen, sulphur does not move against the transpiration stream and cannot be taken from older leaves, for example, to support new growth. So a sufficient and continuous supply is needed in the soil to satisfy all the needs of the growing crop.

Signs of deficiency include the yellowing of young leaves or new growth. By contrast, yellowing from nitrogen deficiency affects the older leaves first.

Sulphur-deficient oilseed rape can also have purpling and upward cupping of young leaves, delayed and prolonged flowering, pale-coloured flowers, and fewer, smaller pods.



Introducing Polysulphate

Polysulphate is a new fertiliser, high in sulphate, available in its natural state, and mined in the UK. A unique benefit is its additional natural content of other macronutrients.

Polysulphate comes from the polyhalite layer of rock, over 1000m below the North Sea off the North Yorkshire coast in the UK. Deposited 260 million years ago, it lies 150-170m below the potash seam at the Cleveland Potash Boulby Mine.

The main Polysulphate seam was reached in September 2010, bringing the first samples up to the surface. It is estimated there are one billion tonnes available from this one source.

Polysulphate is available as both a granular and powder product. The 2-4mm granular product has excellent spreading characteristics and is an ideal fertiliser to apply alongside straight nitrogen.

Polysulphate \

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BOULBY MINE STRATIGRAPHY



Polysulphate contains

- 48% SO₃ as sulphate
- 14% K₂O as from sulphate of potash
- 6% MgO as from magnesium sulphate
- 17% CaO as from calcium sulphate

Benefits of potassium, magnesium and calcium

In addition to sulphate, Polysulphate has the added bonus of valuable levels of potassium (K_2O), magnesium (MgO) and calcium (CaO).

Potash is recognised as a necessary regular input, with recommendations based on soil indices and removal at harvest. But surveys have shown reserves are dropping, with more arable soils at index 0 or 1. Most of the potassium in a harvested crop of cereals is in the straw. So when selling straw makes commercial sense, it's important to boost potassium inputs to compensate. The potassium in Polysulphate complements routine fertiliser applications.

Magnesium is often only applied to some cash crops and vegetables. This macronutrient is part of the chlorophyll in all green plants and essential for photosynthesis. It is removed in significant quantities at harvest of all crops, and an application from Polysulphate will provide a useful input of a nutrient that is frequently overlooked.

The fourth constituent of Polysulphate is calcium, which means that it has effectively no non-nutrient constituents. Calcium is responsible for proper plant cell division and for strengthening cell walls. Polysulphate helps to maintain essential calcium reserves in the soil.

Polysulphate is particularly suitable for crops which prefer low levels of chloride in the soil, such as tobacco, grapes and other fruits, and where higher dry-matters are desired in potatoes.

How Polysulphate performs

Proprietary and independent trials work have shown Polysulphate to be as good as the best sources available of the principal nutrients it contains. It also spreads well at 24 metres and above.

Polysulphate trials have focused on establishing that its principal nutrients – sulphate, potassium, and magnesium – are readily available to the plant. Crop samples were grown in pots and given standard sources of pure potassium and magnesium sulphates, or Polysulphate.

Uptake of the Polysulphate nutrients by the plants was found to be as good if not better than the standard already used in the field. The results confirm Polysulphate's effectiveness as a multi-nutrient fertiliser.

RELATIVE NUTRIENT UPTAKE FROM POLYSULPHATE COMPARED WITH EQUIVALENT STANDARD NUTRIENT SOURCES AND UNFERTILISED CONTROL



These trials have been repeated many times over the last ten years, both in pots and in the field. In every case Polysulphate has performed equally well or better than the best standard alternatives.

Field trials in the UK have also investigated the response of cabbage to sulphate fertiliser. The results showed a 40% yield improvement from an application of Polysulphate.



WHITE CABBAGE YIELD RESPONSE TO POLYSULPHATE (2009 trial on S-deficient site)

Spreadability trials have been undertaken. Polysulphate is a dry, granular 2-4mm product that is available in its natural state. The trials, carried out in France, Denmark and Germany, confirmed an excellent overlapped spread pattern at a 32-metre bout width, with a coefficient of variation of 4.3, and good spreadability up to 36 metres.

SPREADING STRAIGHT POLYSULPHATE







Independent research

"The apparent recovery of potassium indicates that all of the applied potassium [from the Polysulphate] had been taken up by the grass. Significant effects were also seen with magnesium uptake from the applied fertilisers. Sulphur content in the grass was significantly increased over the control." Grass pot trial #1, Levington, 1999

"Potassium levels in the grass were significantly lower in the untreated control. There was a rate effect from the Polysulphate, with the full rate being equivalent to the standard treatment. Polysulphate was a good source of sulphur for the grass." Grass pot trial #2, Levington, 1999

"The results indicate that Polysulphate provides sulphur in an available form immediately after application." HDRA organic trial, 2001

"The results show that Polysulphate provides an immediately available source of sulphur to spring peas, whereas the S from elemental (90%) sulphur was not being taken up by spring peas over the two-month period following its application to the soil." Rothamsted trial on spring peas, 2001

"The visual vigour scores at harvest averaged 92 for the Polysulphate treatment compared with 72 for the control without sulphur." Cabbage field trial, OAT, 2009



Getting the best from Polysulphate

Polysulphate has a number of key benefits, which makes it an ideal choice of sulphate fertiliser for farmers. It offers the chance to fulfil the potential of a range of crops.

Polysulphate is:

- Readily available already in its soluble, sulphate form for immediate use.
- A new granular form of sulphur, offering flexibility to tailor application to field requirements.
- Concentrated, so has a low storage requirement and is quick to spread.
- A source of potassium, magnesium and calcium an added bonus.
- Low in chloride, so suitable for chloride-sensitive crops.
- Environmentally benign as it used in its natural state no processing or waste product, and non-acidifying.
- UK-sourced and a secure supply of fertiliser with a low carbon footprint.

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Advice for arable crops

Polysulphate can be applied in one dressing at the beginning of spring growth. The aim is to match the sulphur requirements to the crop's nitrogen needs.

Where nitrogen rates are varied, in precision farming systems for example, the Polysulphate dressing can be independently varied to best match overall nitrogen applications.

Cereals and oilseeds

- Apply as a straight fertiliser at the start of spring growth.
- Readily available, the crop will take it up with the nitrogen over the spring growing period.
- Apply to oilseed rape to optimise yield, protein and oil synthesis.
- Apply to bread-making wheats for yield and to ensure grain protein quality.
- Apply to malting barley for yield and quality.

Peas

- Apply in the seedbed or soon after emergence.
- A zero-N fertiliser, bringing readily available sulphur to the crop.
- Used by the plant at an early stage to feed the nitrogen-fixation process, which occurs within the root nodules and for protein synthesis in the plant.

Brassica field vegetables

- Brassica crops have been shown to be particularly responsive.
- Apply as a base dressing, especially on high-risk light soils.



Advice for livestock farmers

Applications of manure and slurry cannot be relied on as a source of available sulphate, and are best considered as maintaining soil reserves (see page 8). So Polysulphate should be applied in line with nitrogen requirements as necessary to achieve optimum grass growth throughout the season at the correct N:S ratio.

Conserved leys

- Apply after each cut of silage to complement nitrogen uptake and maintain N:S ratio.
- On lighter soils an application at the start of the spring may also be required.

Grazed leys

- Apply after stock is moved on in rotational systems.
- If set-stocked, and especially on lighter soils, apply early at the start of spring.

Clover leys

- Provides an excellent sulphur boost for later-growing clover.
- Apply as spring growth gets underway earlier growing ryegrass will have taken up soil sulphur reserves.

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Natural, sustainable, dependable

Available in its natural form, Polysulphate is UK-sourced and has a low carbon footprint. It delivers dependable high value, for low environmental impact.

Unlike blended or compound fertiliser, Polysulphate is available in its natural state. It is mined, crushed, screened and bagged, involving no chemical separation or other industrial processes. It is therefore an ideal natural source for all crops, especially brassicas, cereals, pulses, field vegetables, clover-rich grassland leys and silage crops.

The low content of the crop nutrient chloride makes it ideal for use on chloride-sensitive crops. The natural process by which Polysulphate is produced makes it a low carbon footprint fertiliser. This helps growers achieve carbon targets demanded by retailers and some food processors.

There's an estimated 1 billion tonnes available, mined in the UK. As global demand for sulphate fertilisers increases, this provides farmers throughout the world with a dependable source, rather than a by-product material.

Polysulphate is widely accepted as an organic source of the nutrients:

- Licensed as a sulphur fertilizer approved for organic use by the Soil Association in UK
- Licensed as a sulphur fertilizer approved for organic use by the Organic Farmers and Growers in UK
- Registered in the list of production facilities for organic farming in Germany by FiBL (Research Institute of Organic Agriculture)
- Product listed in the BIO fertilizers Italian register as per D. Lgs. 75/2010
- Polysulphate Standard Grade is OMRI listed for organic use in USA
- Polysulphate Standard Grade is listed on the OMRI Canada Products List
- Products are compliant with Regulation (EC) 889/2008 governing organic production
- Polysulphate is registered in the Dutch inputs list for organic farming
- Standard and Granular Polysulphate is approved for use in organic farming by the Plant Protection and Inspection Services (PPIS) of the Ministry of Agriculture and Rural Development, Israel









Polysulphate calculator

Use the chart below to decide how much you need, and how much potassium, magnesium and calcium your application will provide.

Crops	Risk of deficiency	Advised rate (kg	/ha)		Other n	utrients a	applied (k	g/ha)			r
		SO ₃	S	Polysulphate	K ₂ O	К	MgO	Mg	CaO	Ca	
Cereals	higher	50	20	100	14	11.7	6	3.6	17	12.2	ļ e
	lower	25	10	50	7.5	6.2	3	1.8	8.5	6.1	
Oilseed rape	higher	75	30	150	21	17.4	9	5.4	25.5	18.4	, S
	lower	50	20	100	14	11.6	6	3.6	17	12.2	
Peas (for dried, vining and fresh markets)		25	10	50	7.5	6.2	3	1.8	8.5	6.1	ļ ē
Brussels sprouts, cabbage, cauliflowers, calabrese		50	20	100	14	11.6	6	3.6	17	12.2	A S C
Grassland		40	16	80	11.2	9.3	4.8	2.9	13.6	9.8	/ k

* Generally applications should be made where a deficiency has been recognised or is expected. This can be assessed through tissue analysis, crop observation or whether in a high-risk area. Refer to official recommendations for further details.

Notes

Apply in early spring before the start of stem extension.

Apply in early spring. Spring crops may be less susceptible to deficiency.

Apply where soil is sandy, shallow or medium textured and contains little organic matter.

Apply where sulphur content of soils is low, e.g. light soils following wet winters where there is no history of organic manures application.

Apply at the start of growth before each cut. May not be required before first cut on medium/heavy soils.

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www.polysulphate.com

Polysulphate is a trademark of ICL



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Appendix C Confidential Sales/Pricing Information

Please see separate Confidential document.

C1

C2





D1

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Appendix D Community Fund Information





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RITY SPONSORSHIP	FISHBURN PARK GIRLS FC 500 TO FUND A FOOTBALL KIT AND TRAINING EQUIPMENT	STAITHES COASTGUARD TEAM SPONSORSHIP TO TAKE PART IN THE BLUE LIGHT WAY WALK	BRC ARP FOR M TRAIN
TIVAL STAGE GRAY SCULPTURE	CLEVELAND POTASH RETIREMENT ASSOCIATION & ACTIVITIES GROUP FOR RETIRED EMPLOYEES	£500 SALTBURN ATHLETIC FOOTBALL CLUB CONTRIBUTION TOWARDS A FENCE	LEV FOC SPON
AVE ONTHS ER	GOATHLAND COMMUNITY HUB & SPORTS PAVILLION REFURBISHMENT OF TOILET FACILITIES £500	EAST CLEVELAND YOUTH HOUSING TRUST FOR FIRST AID AND PERSONAL £460 PROTECTIVE EQUIPMENT	E
O SCHOOL WENT	STAITHES CRICKET CLUB £500 REPAIRS TO THE CLUBS GANG MOWERS	ENEWING THE CHRISTMAS LIGHTS	WHI FOO REFUE DISAE
JNSWICK TION RGROUND VISIT -	SPECIAL EDUCATIONAL DISABILITIES (SEND) SPONSORING AN ICL BOULBY EMPLOYEE FOR A ZUMBATHON TO RAISE FUNDS FOR SEND.	SALTBURN 500 GROUP£500FOR REFURBISHING THE VICTORIAN STATUES AND BANDSTAND	LEVE £5 MATCH
IG CLUB	WHITBY DISTRIC LIONS CLUB 2 FIRKINS OF BEER SPONSORHSIP FOR WHITBY BEER FESTIVAL	ESOO LIGHT UP LOFTUS FOR THE EXTENSION OF CHRISTMAS LIGHTING	WALI ASSO SPONS BOULE
N IMPAIRMENTS LP (WHISH) STRESS MANAGEMENT SESSIONS	GUISBOROUGH IN BLOOM E 500 BASKET PLANTING	£500 NEW KITS & COSTUMES FOR THE EUROPEAN DANCE CHAMPIONSHIPS GUISBOROUGH CHEERLEADING CLUB	BRO ARM NEW TRAIN







SPORTMULGRAVE Mulgrave Community Sports Association Fern Cottage, Sandsend Whitby North Yorkshire YO21 3Te Tel +44 (0)1947 89 32311 E-mail info@sportmulgrave.co.uk Internet http://www.sportmulgrave.co.uk

Charity Number 1107626

20th March 2019

Dear Donna,

On behalf of M.C.S.A. I would like to say a very big thank you to you for all your hard work securing the delivery of the 20 bags of fertilizer. It means a great deal to the association and without people and businesses like yourselves being so generous it would be very difficult for the club to carry on working to improve the sporting life of the old and young in our area.

Yours Faithfully,

1. A. Raine

Marlborough, Neil

From:	Anthea <ellis886@btinternet.com></ellis886@btinternet.com>
Sent:	16 April 2019 15:41
То:	Donna Bennison
Subject:	RE: [!EXTERNAL!] Requested Info - Mulgrave History Project

Hi Donna

This project was the best one Jet Coast Development Trust has ever managed. Every activity over the three years was well attended, and it really was easy to engage all the seven parishes covered. Many people learned new skills, and communities worked together on certain projects.

David was an enormous help, with advice and information, and CPL loaned us the survey equipment – magnetometer and resistance meter. We didn't find Seton Church, but managed to prove the existence of an Iron Age Settlement between Runswick and Ellerby.

NYMNP paid us to undertake a survey on Roxby Old Hall, so the field surveying training must have worked!

We produced a Google Map with historical data, available for anyone to see – link on this website <u>https://mulgravecrp.wordpress.com</u>

We produced several village walk leaflets and heritage research books. Sales of these publications means that we can publish any new research that comes to light. So we are still active, but to a lesser degree. Recently we were able to contribute financially to improvements to St. Hilda's Well, the only scheduled ancient monument in the parish.

Good luck with your application, and I will be in touch soon about assistance from ICL regarding other village projects.

Anthea

Sent from Mail for Windows 10

From: Donna Bennison Sent: 16 April 2019 15:17 To: Anthea Subject: RE: [!EXTERNAL!] Requested Info - Mulgrave History Project

Anthea,

Thank you so much for your help, really appreciate it.

Have a nice Easter.

Regards

Donna Bennison External Affairs Project Coordinator Tel: +44 (0) 1287 646618 Mobile: +44 (0) 7790 923696 Ext: 2316 Boulby Mine Loftus Saltburn TS13 4UZ donna.bennison@icl-group.com www.icl-uk.uk



From: Anthea <ellis886@btinternet.com>
Sent: 16 April 2019 11:58
To: Donna Bennison <Donna.Bennison@icl-group.com>
Subject: [!EXTERNAL!] Requested Info - Mulgrave History Project



IRONSCALES couldn't recognize this email as this is the first time you receive an email from this sender ellis886@btinternet.com

Hi Donna

Files attached for information. Will email again later – have to go out.

Anthea

Sent from Mail for Windows 10



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