ASX and Media Release

4 October 2011

ASSAY RESULTS CONFIRM HIGH QUALITY TALC INTERSECTIONS

KEY POINTS

- **Assay results from Sheffield's first diamond drilling programme define significant zones of premium grade talc**
- **Chemical characteristics comparable to Luzenac's Three Springs talc mine**
- **Further testwork in progress to characterise physical properties of Sheffield's talc**

Bulk minerals explorer Sheffield Resources ("Sheffield") (ASX:SFX) today announced high grade talc results from drilling at its Moora Talc Belt project located 300km north of Perth in Western Australia's Mid West region (Figure 2).

Assay results from the Company's 1,238m core drilling programme completed in June 2011 have defined the chemical characteristics of the talc, with high grade talc intersected at all six prospects drilled (Table 2). Furthermore, significant widths of talc are defined at three of the prospects; Fowlers, Prowaka South and Tilleys.

Managing Director, Bruce McQuitty said the drilling results are a terrific boost to Sheffield's exploration campaign in the Moora Talc Belt.

"These results confirm the chemical characteristics of our talc are comparable to those of Luzenac's Three Springs mine which is renowned for its premium grade microcrystalline talc. Our goal is to discover similar premium quality talc deposits capable of supporting long-life direct shipping mining operations."

Sheffield's 1,152km^2 Moora Talc Belt project contains over twenty known talc occurrences. The Company's strategy is to carefully evaluate the quality and size potential of each occurrence before committing to a resource drill-out on the highest priority targets.

Significantly, the Company has also finalised access and approvals to drill the Azharuddin prospect, located 4km south of Fowlers prospect in the southern half of the Moora Talc Belt (Figure 2). Limited historical drilling (2 holes) at Azharuddin by Rio Tinto intersected multiple intervals of high purity talc up to 18m thick from relatively shallow depths (Table 4). Sheffield plans to drill Azharuddin, along with other high priority talc targets, in the first half of 2012.

Sheffield is one of very few listed public companies in the world offering significant exposure to talc which is principally used in the manufacture of paper, ceramics and plastics.

The results of Sheffield's talc drilling programme demonstrate that several of Sheffield's prospects contain talc which is of comparable or better chemical purity than that of the Three Springs Mine. This is most evident in the lower levels of the undesired contaminant, iron, in Sheffield's samples as shown in Figure 1.

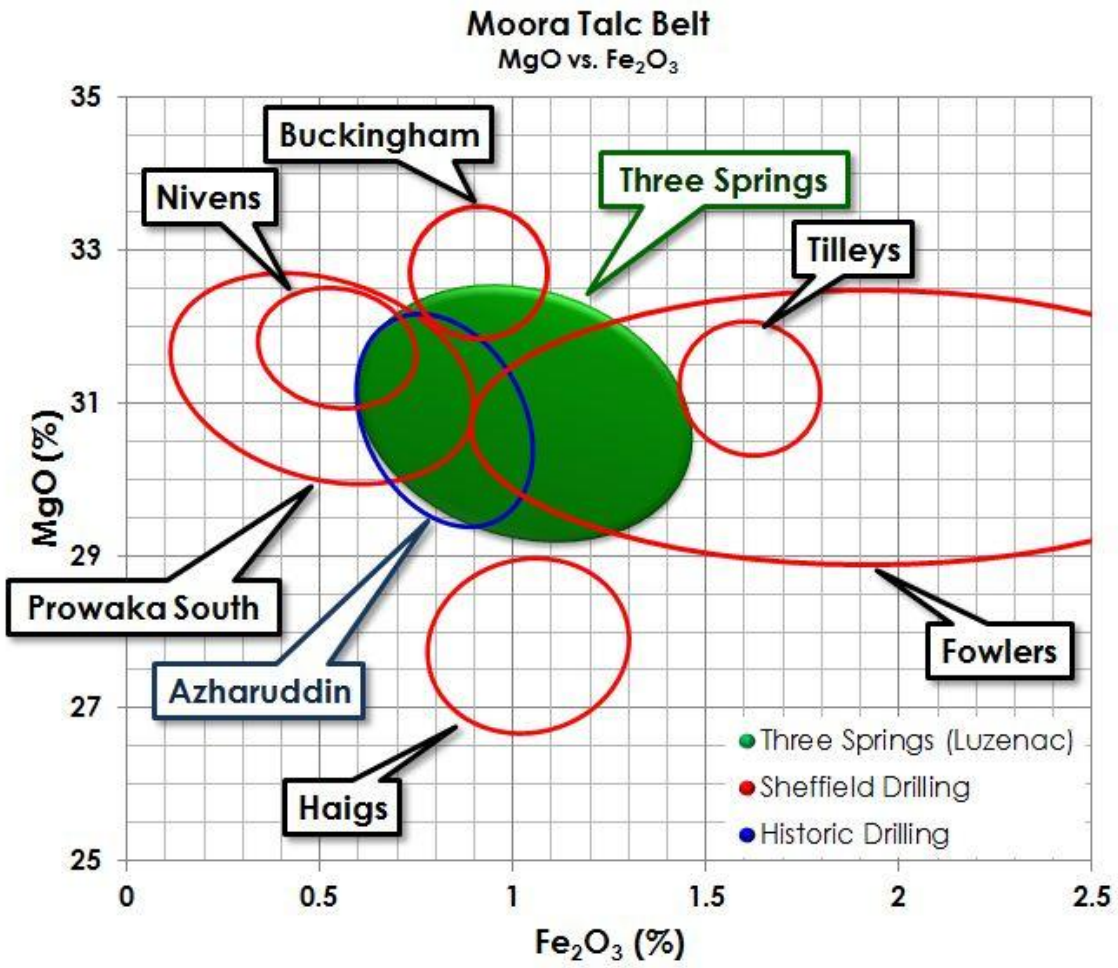

Figure 1: Plot of MgO vs Fe_2O_3 showing a comparison of Sheffield Prospects with the Three Springs Mine. (Three Springs data sourced from open file reports).

The results of the drilling programme are summarised for each prospect below.

Prowaka South

Prowaka South is located 11km south of the Three Springs mine and contains talc of a very similar style. Two distinct zones of talc mineralisation were intersected in hole MODD003. The upper zone comprises numerous narrow intervals of high grade talc with very low iron values, including:

- **MODD003: 2.13m @ 31.8% MgO, 61.6% SiO_2, 0.25% Fe_2O_3, 0.56% CaO from 82.0m**

The lower zone consists of a substantial width of talc mineralisation, containing some secondary carbonate veining and brecciation. This is typical of the margins of large dolomite-hosted talc deposits such as at Three Springs.

- **MODD003: 12.4m @ 30.4% MgO, 52.3% SiO_2, 0.68% Fe_2O_3, 4.38% CaO from 180.3m**

The results are interpreted as indicative of proximity to a large body of high grade talc. Further drilling will seek to vector towards the centre of the deposit and target the mineralisation up-dip, closer to surface.

Tilleys

A single drill hole intersected a significant width of high grade talc adjacent to a sheared dolerite dyke (Figure 3):

- **MODD009: 18.6m @ 31.1% MgO, 61.5% SiO_2, 1.56% Fe_2O_3, 0.13% CaO from 45.6m**

The elevated iron levels, associated with the mineral chlorite, are believed to be due to the presence of the dolerite dyke and are expected to decrease away from the dolerite. Tilleys constitutes a substantial sized target with mineralisation remaining open in most directions.

Fowlers

Two drill holes MODD006 and MODD008 at Fowlers intersected up to 81.1m thickness of weathered and partially weathered talc with exceptionally low CaO levels from near surface (Figure 4). Overall, Fowlers has elevated iron levels (>2% Fe_2O_3), however within the deposit there are zones of lower iron, for example:

- **MODD006: 11.4m @ 30.2% MgO, 62.5% SiO_2, 1.02% Fe_2O_3, 0.02% CaO from 0.9m**
- **MODD006: 25.8m @ 30.7% MgO, 62.0% SiO_2, 1.54% Fe_2O_3, 0.06% CaO from 45m**
- **MODD008: 41.8m @ 30.3% MgO, 62.3% SiO_2, 1.49% Fe_2O_3, 0.03% CaO from 3m**

The Company intends to evaluate the distribution of these low iron zones within the deposit. As much of the iron occurs as oxides on fractures, it may be possible to reduce the iron content through beneficiation processes.

Nivens

Several narrow high grade intersections of pearly white talc were returned from drilling at Nivens, including:

- **MODD002: 1.15m @ 31.4% MgO, 62.9% SiO_2, 0.66% Fe_2O_3, 0.08% CaO from 53.2m**

The exceptional quality of the talc provides encouragement for further step-out drilling around the prospect.

Buckingham

Weathered talc with low iron levels was intersected from a shallow depth:

- **MODD004: 7.60m @ 28.7% MgO, 62.5% SiO_2, 0.86% Fe_2O_3, 0.04% CaO from 25.3m**

Further exploration will target the talc horizon below the base of oxidation.

Haigs

A narrow zone of weathered talc with low iron levels was intersected:

- **MODD005: 1.50m @ 28.9% MgO, 63.7% SiO_2, 0.96% Fe_2O_3, 1.13% CaO from 25.6m**

Chemical analyses of 9 talc samples from the Three Springs mine are shown in Table 1 as a comparison against assay intervals reported here:

Table 1. Three Springs Mine talc samples, chemical analyses.

Element	MgO	SiO_2	Fe Total*	Al_2O_3	CaO
Min	30.1	59.1	0.85	0.13	0.01
Max	31.3	62.5	1.43	1.96	0.45
Average	**30.7**	**61.5**	**1.08**	**0.74**	**0.14**

**Fe Total reported as Fe_2O_3 + FeO. Data from Fetherston, J.M., Abeysinghe, P., B., Jiang Shanqing, and Wang Guowu, 1999, Six industrial minerals of significance in Western Australia: Western Australia Geological Survey, Report 67, 84p.*

Further Work

Further testwork including brightness measurements is in progress, with results expected in November. Follow-up drilling of priority targets is scheduled for 1H 2012.

ABOUT TALC

Talc, with a chemical formula of $Mg_3Si4O_{10}(OH)_2$, is a hydrous silicate mineral made up of magnesium (Mg 31.88%), silica (SiO_2 63.37%) and water (H_2O 4.75%). Talc is one of the softest minerals known to man and is also chemically inert, non-toxic, repels water and readily absorbs oil.

Talc may be sold both as a raw lump product to talc mills and also after milling as a micronised product.

Paper represents the largest end-use industry for talc, followed by the ceramics industry. Talc is also used in the manufacture of plastics. Surging requirements in the automotive market for recyclable and lightweight materials have largely been contributing to the escalating demand for plastics, which in turn is propelling growth of talc products. Talc has many other industry uses including rubber, paints, roofing and pharmaceuticals.

Chinese producers dominate the world market (approximately 50%) with regard to volume production. The Chinese talc industry has been facing a number of challenges which have created insufficient supply of high-grade talc. This is due primarily to the exhaustion of high grade talc mines in China and an increase in demand both domestically and in export markets. Chinese output of high grade talc is considered insufficient to meet the current needs of neither the Chinese domestic market nor export demand.

During 2008 and 2009 talc prices ranged between US$259 and US$460 per tonne depending on grade.

ENDS

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COMPETENT PERSONS' STATEMENT

The information in this announcement that relates to exploration results is based on information compiled by David Archer. Mr Archer is a full time employee of the Company. Mr Archer is a Member of the Australasian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity to which they are undertaking to qualify as Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC Code")'. Mr Archer consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

FORWARD LOOKING AND EXPLORATION TARGET STATEMENTS

Some statements in this announcement regarding estimates or future events are forward-looking statements. They involve risk and uncertainties that could cause actual results to differ from estimated results. Forward-looking statements include, but are not limited to, statements concerning the Company's exploration programme, outlook, target sizes and mineralised material estimates. They include statements preceded by words such as "expected", "planned", "target", "scheduled", "prospective", and similar expressions.

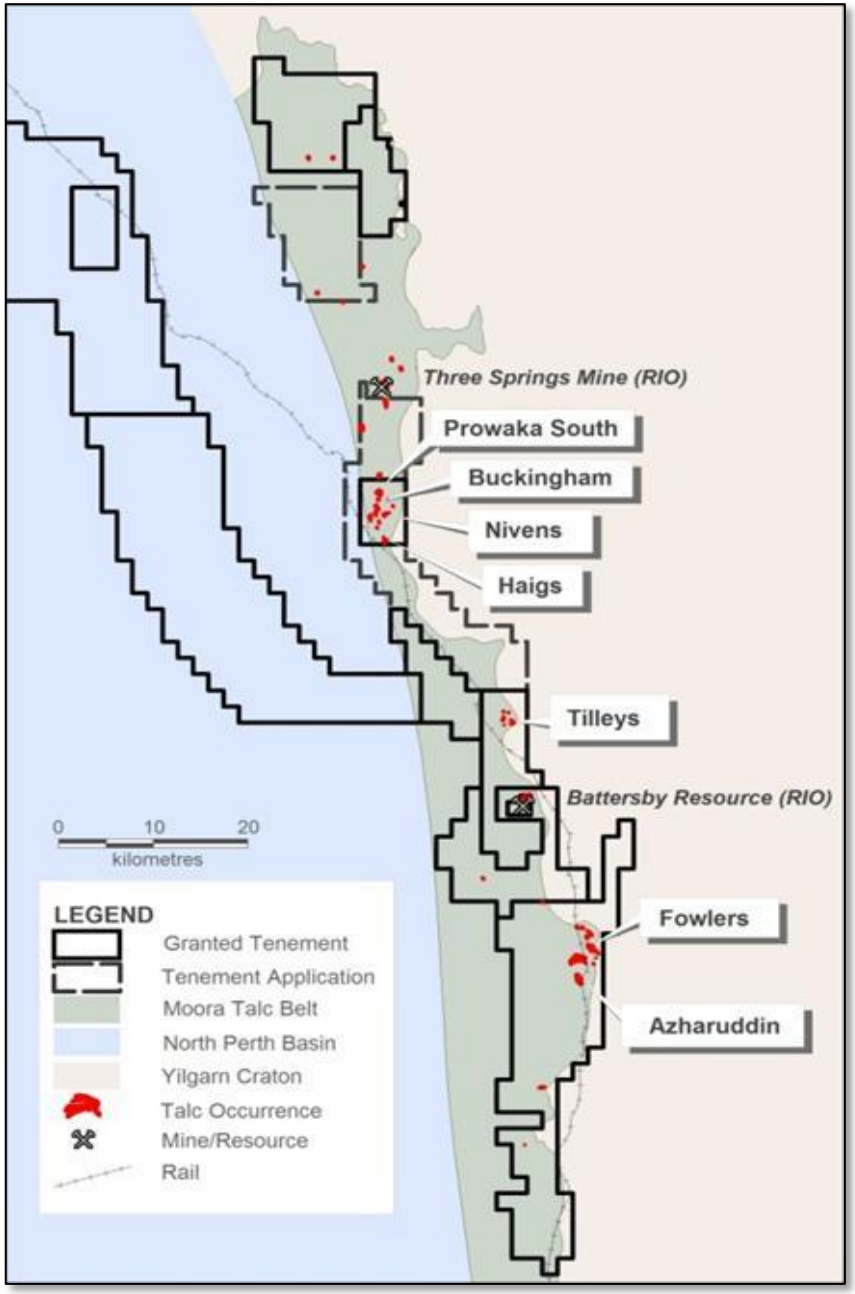

Figure 2: Location of Sheffield's Tenements and priority targets in the Moora Talc Belt

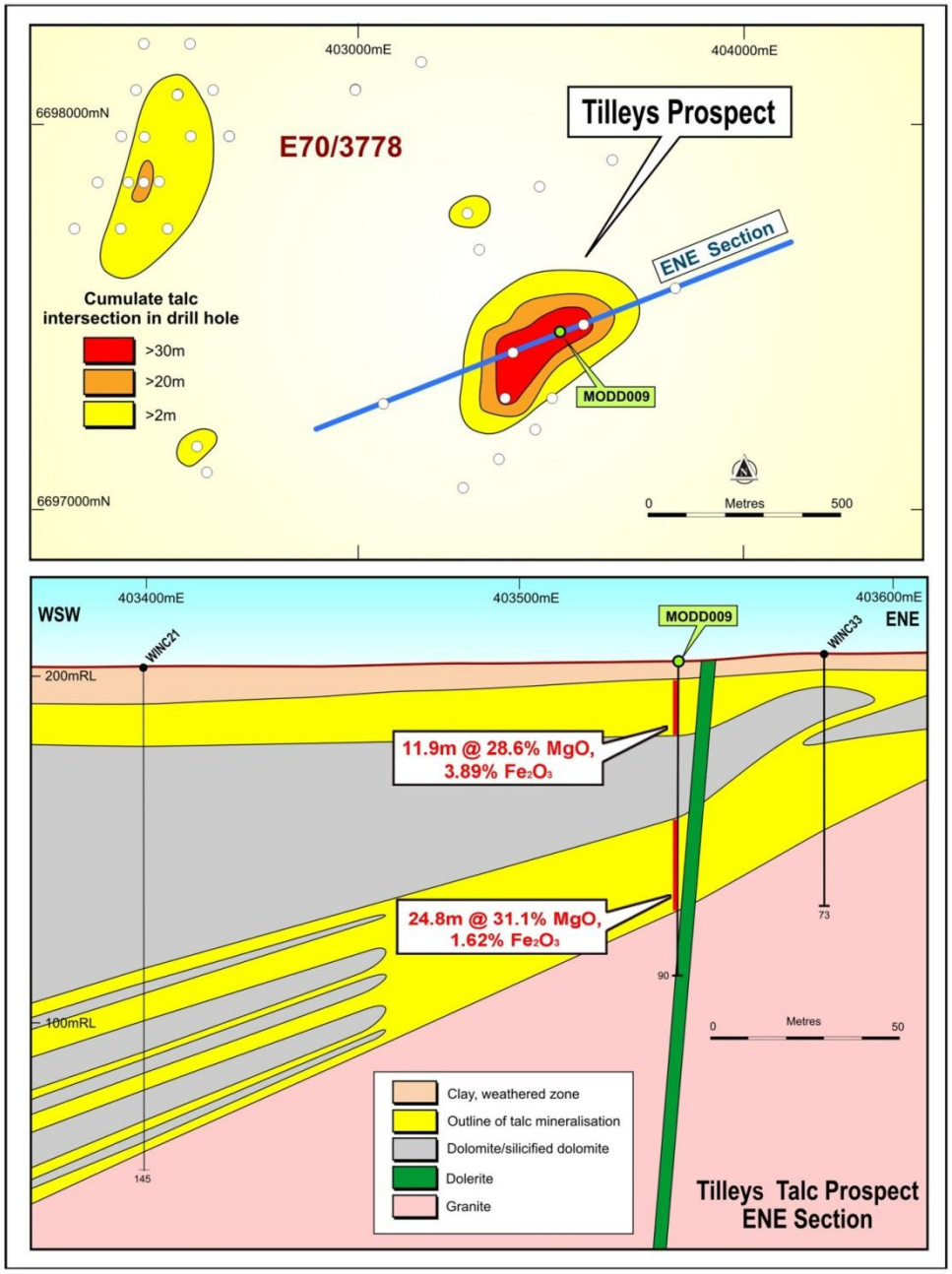

Figure 3: Tilleys Prospect plan and section showing hole MODD009 intersecting significant zones of talc adjacent to a dolerite dyke

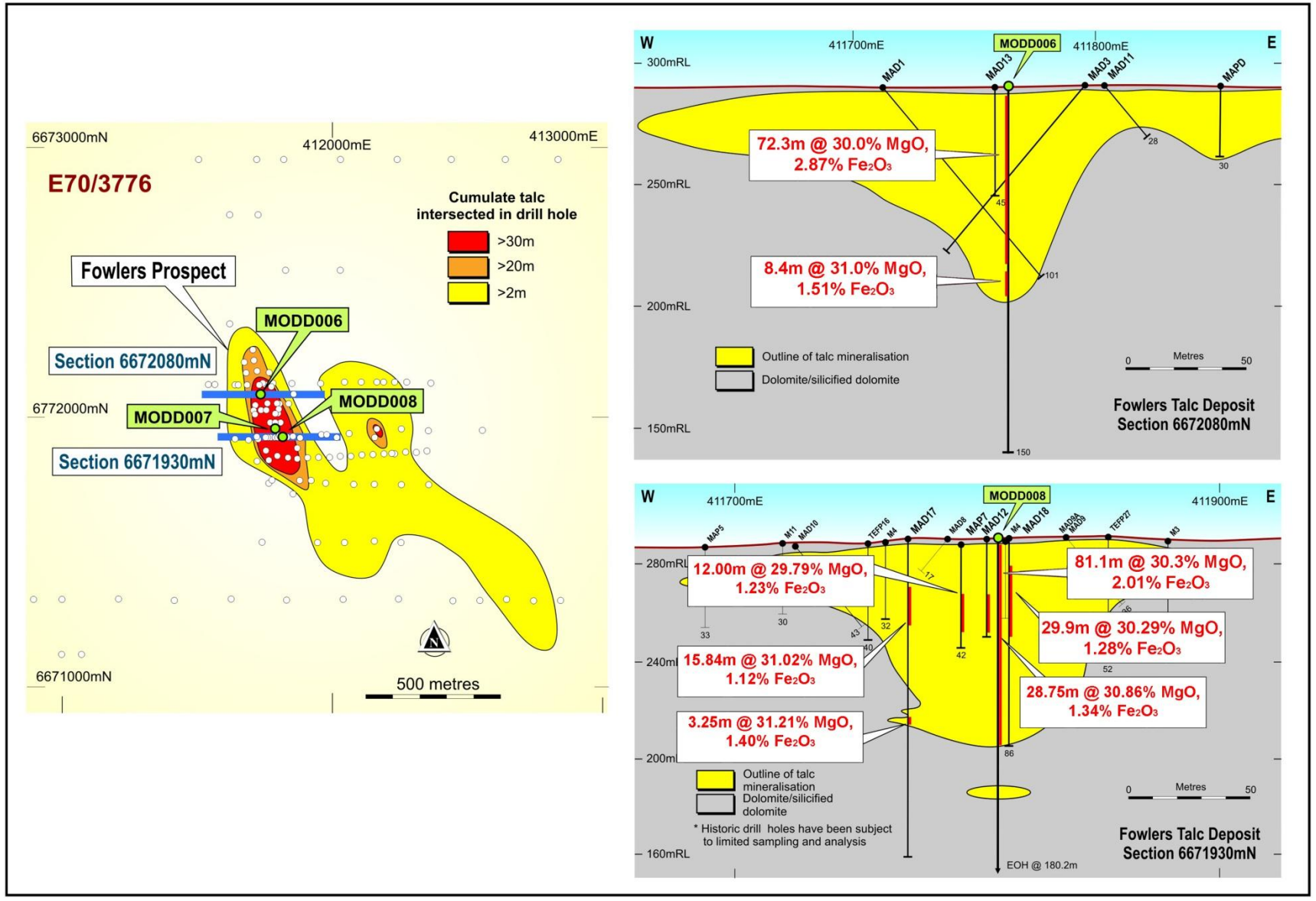

Figure 4: Fowlers plan and sections showing consistently thick talc intersected over 250m strike.
Note historic work did not comprise systematic sampling of all talc intersections.

Table 2: Moora Talc Belt Project diamond drilling assay results. Sample intervals are based on geological criteria. Quarter HQ/PQ core. Analyses by XRF. Minimum reported width 1m.

Prospect	Hole ID	Depth From (m)	Depth To (m)	Interval (m)	MgO (%)	SiO_2 (%)	Fe_2O_3 (%)	Al_2O_3 (%)	CaO (%)	P2O5 (%)	LOI (%) (1000°)	Comments
Nivens	MODD001	No significant interval										
	MODD002	53.20	54.35	1.15	31.43	62.85	0.66	0.16	0.08	0.014	4.8	
	MODD002	60.30	61.46	1.16	31.9	62.9	0.40	0.04	0.16	0.007	4.8	
	MODD002	73.24	74.24	1.00	32.1	62.8	0.41	0.12	0.13	0.003	4.9	
Prowaka South	MODD003	72.78	75.01	2.23	31.7	61.2	0.47	0.23	0.58	0.005	5.6	Upper talc zone.
	MODD003	82.02	84.15	2.13	31.8	61.6	0.25	0.09	0.56	0.015	5.5	Upper talc zone.
	MODD003	84.53	86.62	2.09	32.0	61.9	0.29	0.08	0.35	0.006	5.5	Upper talc zone.
	MODD003	90.94	95.33	4.39	32.3	56.3	0.29	0.07	1.57	0.005	9.3	Upper talc zone, elevated CaO from dolomite veining.
	MODD003	176.00	177.37	1.37	31.7	61.1	0.64	0.45	0.41	0.002	5.4	Lower talc zone, on margin of dolerite dyke.
	MODD003	**180.26**	**192.70**	**12.44**	**30.4**	**52.3**	**0.68**	**0.80**	**4.38**	**0.010**	**11.2**	Lower talc zone, elevated CaO from calcite veining.
Buckingham	MODD004	25.30	32.90	7.60	28.7	62.5	0.86	1.80	0.04	0.005	5.3	Weathered talc
Haigs	MODD005	25.60	27.10	1.50	28.9	63.7	0.96	1.13	0.02	0.002	5.0	Weathered talc
Fowlers	**MODD006**	**0.90**	**73.16**	**72.26**	**30.0**	**61.2**	**2.87**	**0.59**	**0.05**	**0.019**	**5.0**	
	including:	***0.90***	***12.25***	***11.35***	***30.2***	***62.5***	***1.02***	***0.98***	***0.02***	***0.003***	***5.1***	
		12.25	*18.78*	*6.53*	*30.5*	*61.7*	*1.76*	*0.73*	*0.05*	*0.005*	*5.1*	
		20.00	*30.56*	*10.56*	*29.3*	*59.1*	*5.53*	*0.44*	*0.01*	*0.013*	*5.2*	Elevated iron at palaeo-water table.
		30.56	*33.39*	*2.83*	*31.2*	*62.9*	*1.08*	*0.16*	*0.01*	*0.005*	*4.7*	
		34.84	*37.95*	*3.11*	*30.8*	*62.3*	*1.57*	*0.38*	*0.01*	*0.005*	*4.8*	
		38.28	*41.06*	*2.78*	*30.7*	*63.0*	*1.19*	*0.31*	*0.01*	*0.004*	*4.8*	
		45.00	*70.75*	*25.75*	*30.7*	*62.0*	*1.54*	*0.66*	*0.06*	*0.036*	*4.8*	
	MODD006	**78.34**	**86.78**	**8.44**	**31.0**	**61.7**	**1.51**	**0.40**	**0.13**	**0.063**	**4.9**	
	MODD006	89.28	92.33	3.05	31.0	60.5	1.44	0.44	0.66	0.040	5.7	
	MODD008	**3.00**	**84.13**	**81.13**	**30.3**	**62.0**	**2.01**	**0.59**	**0.03**	**0.008**	**4.9**	Includes 1.4m core loss.
	including:	*3.00*	*44.76*	*41.76*	*30.3*	*62.3*	*1.49*	*0.86*	*0.03*	*0.007*	*4.9*	*Includes 1m core loss.*
		44.76	*54.15*	*9.39*	*29.5*	*61.3*	*3.82*	*0.30*	*0.04*	*0.011*	*4.9*	Elevated iron at palaeo-water table.
		54.15	*75.45*	*21.30*	*30.6*	*62.3*	*1.99*	*0.28*	*0.02*	*0.006*	*4.8*	
Tilleys	**MODD009**	**8.90**	**20.75**	**11.85**	**28.6**	**54.3**	**3.89**	**3.65**	**1.37**	**0.215**	**7.5**	Elevated Fe and Al in weathered zone.
	MODD009	**45.60**	**70.40**	**24.80**	**31.1**	**61.2**	**1.62**	**0.69**	**0.20**	**0.080**	**5.0**	Elevated iron adjacent to dolerite.
	including:	*45.60*	*64.20*	*18.60*	*31.1*	*61.5*	*1.56*	*0.59*	*0.13*	*0.067*	*4.9*	
		66.00	*70.40*	*4.40*	*30.8*	*61.1*	*1.65*	*0.56*	*0.40*	*0.052*	*5.2*	

Table 3: Moora Talc Belt – Sheffield diamond drill hole details

Prospect	Hole ID	Tenement	Easting	Northing	RL	Hole Depth	Hole Orientation
Nivens	MODD001	E70/3779	389694	6720959	265	123.8	Vertical
Nivens	MODD002	E70/3779	389661	6720801	262	120.7	Vertical
Prowaka South	MODD003	E70/3779	389290	6723431	247	240.7	Vertical
Buckingham	MODD004	E70/3779	388871	6721875	252	136	Vertical
Haigs	MODD005	E70/3779	389686	6718056	255	116.6	Vertical
Fowlers	MODD006	E70/3776	411764	6672083	290	150.2	Vertical
Fowlers	MODD007	E70/3776	411802	6671950	290	79.4	Vertical
Fowlers	MODD008	E70/3776	411809	6671938	290	180.2	Vertical
Tilleys	MODD009	E70/3778	403546	6697459	290	90.4	Vertical

Coordinates are MGA Zone 50 (GDA94).

Table 4: Azharuddin prospect – Rio Tinto Exploration RC drill results

Hole ID	Easting	Northing	Depth From (m)	Interval (m)	MgO (%)	SiO_2 (%)	Fe_2O_3 (%)	Al_2O_3 (%)	CaO (%)
RC03SC002	410737	6668257	24	6	29.95	65.03	0.92	0.50	0.01
			40	18	31.24	62.59	0.82	0.48	0.01
RC03SC005	410581	6668613	36	6	29.62	62.31	0.95	1.07	0.06
			47	11	30.57	63.29	0.87	0.72	0.04
			69	12	28.13	64.95	0.97	1.02	0.18

Coordinates are MGA Zone 50 (GDA94). Holes are vertical. Intersections are approximately true width.

ABOUT SHEFFIELD RESOURCES

Sheffield Resources Limited (**Sheffield**) is a new exploration company with a bulk minerals focus. The Company's Projects are geared towards the steel industry feed cycle (iron ore and tungsten) and the emerging fillers-ceramics-pigments cycle (talc, zircon, titanium dioxide).

ASX Code – SFX	Market Cap @ 23cps - $13.5m
Issued shares – 58.7m	Cash - $4.1 (at 30/6/2011)

The Company has over 6,000km^2 of highly prospective tenure, all situated within the state of Western Australia.

TALC

Sheffield has 1,152km^2 of tenure over the 175km-long Moora Talc Belt which represents a dominant ground position over a region that has, for the last 50 years, been exclusively controlled by major mining companies.

The Moora Talc Belt includes the large Three Springs mine which is owned by Imerys subsidiary Luzenac Australia Pty Ltd. Three Springs is renowned for producing high purity talc and is a relatively simple "dig-and-deliver" operation.

The existing infrastructure is excellent. A railway and a sealed highway transect the project and connect to Geraldton port approximately 170km to the northwest.

Sheffield's large tenement holding contains numerous talc occurrences and has the potential to become a strategic talc asset. Sheffield therefore represents a unique opportunity for investors to gain exposure to one of the few high-grade talc explorers in the world.

HEAVY MINERAL SANDS

Sheffield controls over 5,000km^2 of mineral sands tenure in the established North Perth Basin mineral sands province and the emerging Carnarvon, Eucla and Canning Basin provinces.

The Dampier project, located near Derby in WA's Kimberley region is the most recent addition to Sheffield's heavy mineral sands project portfolio. Dampier is a large scale zircon play formerly explored by Rio Tinto.

Sheffield's North Perth Basin tenement package of over 2,500km^2 contains seven advanced exploration projects: West Mine North, Ellengail, Yandanooka, Durack, Beekeepers, and Irwin which are located near Eneabba; and the large McCalls deposit - a former BHP project located near Gingin. These projects are well located close to existing mineral sands operations and to a network of highways and railway lines connecting to Geraldton and Fremantle/Kwinana ports. Sheffield's strategy is, subject to exploration success, to build multiple HMS projects capable of supporting a flexible mobile mining plant.

IRON

Sheffield's Pilbara iron ore projects consist of five granted tenements and 7 tenement applications, five of which are subject to ballot with multiple competing parties. Sheffield's strategy is to target hematite mineralisation adjacent to infrastructure in the world class Pilbara iron province and to build up consolidated tenement holdings over time. High grade iron mineralisation has been identified on three of the Company's tenements.