THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION. If you are in any doubt about the contents of this document or as to what action you should take, you should immediately consult an independent professional adviser authorised under the Financial Services and Markets Act 2000, as amended ("FSMA"), who specialises in advising on the acquisition of shares and other securities, or another appropriate adviser if you are in a country outside the United Kingdom, before taking any action. This document comprises an AIM admission document which has been prepared in accordance with the AIM Rules for Companies and has been issued in connection with the application for Admission. This document does not constitute a prospectus for the purposes of the Prospectus Rules made under section 73A of FSMA and contains no offer to the public within the meaning of sections 85 and 102B of FSMA or otherwise. This document has not been, and will not be, approved or examined by the Financial Services Authority ("FSA") pursuant to section 85 of FSMA and a copy has not been delivered to the FSA under regulation 3.2 of the Prospectus Rules, the UK Listing Authority or any other authority which could be a competent authority for the purposes of the Prospectus Directive.

PROSPECTIVE INVESTORS SHOULD READ THE WHOLE OF THE TEXT OF THIS DOCUMENT AND SHOULD BE AWARE THAT AN INVESTMENT IN THE COMPANY IS SPECULATIVE AND INVOLVES A HIGH DEGREE OF RISK AND MAY RESULT IN THE LOSS OF THE ENTIRE INVESTMENT AND MAY NOT BE SUITABLE FOR ALL RECIPIENTS OF THIS DOCUMENT. IN PARTICULAR, PROSPECTIVE INVESTORS' ATTENTION IS DRAWN TO THE SECTION ENTITLED "RISK FACTORS" IN PART II OF THIS DOCUMENT.

The Ordinary Share Capital is currently traded on PLUS. Application has been made for the Enlarged Share Capital of the Comapany to be admitted to trading on AIM. It is expected that Admission will take place and that unconditional dealings in the Enlarged Share Capital will commence on 20 April 2011. The Company will de-list from PLUS at the close of business on 19 April 2011. It is emphasised that no application has been made or is being made for the Enlarged Share Capital to be admitted to the Official List of the UK Listing Authority and that the AIM Rules for Companies are less demanding than those of the Official List of the UK Listing Authority.

AIM is a market designed primarily for emerging or smaller companies to which a higher investment risk tends to be attached than to larger or more established companies. AIM securities are not admitted to the Official List and the AIM Rules for Companies are less demanding than those of the Official List. A prospective investor should be aware of the risks of investing in such companies and should make the decision to invest only after careful consideration and, if appropriate, consultation with an independent financial adviser. It is emphasised that no application is being made for admission of the Ordinary Shares to trading on the Official List. Each AIM company is required pursuant to the AIM Rules for Companies to have a nominated adviser. The nominated adviser is required to make a declaration to the London Stock Exchange on Admission in the form set out in Schedule Two to the AIM Rules for Nominated Advisers. The London Stock Exchange has not itself examined or approved the contents of this document. The Existing Ordinary Shares are admitted to trading on PLUS Markets. Apart from the application for Admission, no other such application has been or is intended to be made.

The Company, together with the Directors, whose names are set out on page 32 of this document, accept responsibility both individually and collectively, for the information contained in this document and the Directors accept full responsibility, collectively and individually for the Company's compliance with the AIM Rules for Companies. To the best of the knowledge and belief of the Directors and the Company (who have taken all reasonable care to ensure that such is the case), the information contained in this document is in accordance with the facts and does not omit anything likely to affect its import. In connection with this document and/or Admission, no person is authorised to give any information or make any representations other than as contained in this document and, if given or made, such information or representations must not be relied upon as having been so authorised. This document has not been approved by Libertas Capital Corporate Finance Limited ("Libertas") for the purposes of section 21(2)(b) of FSMA.

ORACLE COALFIELDS PLC

(Incorporated and registered in England and Wales under the Companies Act 2006 with registered number 5867160)

Proposed placing of 30,000,000 Ordinary Shares of 0.1p each at a price of 10p per Ordinary Share and Admission to trading on AIM

Nominated Adviser and Broker

LIBERTAS CAPITAL CORPORATE FINANCE LIMITED

Share Capital on Admission
Issued and fully paid

Number of Ordinary Shares	*Amount*
214,211,000	£214,211

The Placing Shares will, on Admission, rank *pari passu* with the Existing Ordinary Shares and will rank in full for all dividends and other distributions declared, made or paid on the Existing Ordinary Shares after the date of this document.

Libertas, which is authorised and regulated in the United Kingdom by the FSA, is acting as nominated adviser to the Company in connection with the proposed admission of the Enlarged Share Capital to trading on AIM. Its responsibilities as the Company's nominated adviser under the AIM Rules for Nominated Advisers are owed solely to the London Stock Exchange and are not owed to the Company or to any Director or to any other person in respect of his decision to acquire Ordinary Shares in reliance on any part of this document. Libertas are not acting for anyone else and will not be responsible to anyone other than the Company for providing the protections afforded to their clients or for providing advice in relation to the contents of this document or the Placing or Admission. No representation or warranty, express or implied, is made by Libertas as to the contents of this document, without limiting the statutory rights of any person to whom this document is issued. Neither will Libertas be offering advice, nor will they otherwise be responsible for providing client protections to recipients of this document or for advising them on the contents of this document or any other matter. The information contained in this document is not intended to inform or be relied upon by any subsequent purchasers of Ordinary Shares (whether on or off exchange) and accordingly no duty of care is accepted in relation to them.

This document does not constitute an offer to sell, or solicitation of an offer to subscribe for or buy, Ordinary Shares to any person in any jurisdiction to whom it is unlawful to make such an offer or solicitation. In particular, this document is not being and must not be mailed, copied or otherwise distributed or sent in or into or from the United States of America, Canada, Australia, the Republic of South Africa, the Republic of Ireland or Japan or any other jurisdiction if to do so would constitute a violation of the relevant laws of such jurisdiction. Accordingly, the Ordinary Shares may not, subject to certain exceptions, be offered directly or indirectly in or into the United States of America, Canada, Australia, the Republic of South Africa, the Republic of Ireland or Japan. The Ordinary Shares have not been and will not be registered under the United States Securities Act of 1933 (as amended) or under the securities legislation of any state of the United States of America, Canada, Australia, the Republic of South Africa, the Republic of Ireland or Japan and they may not be offered or sold directly or indirectly within the United States of America, Canada, Australia, the Republic of South Africa, the Republic of Ireland or Japan or to or for the account or benefit of any national, citizen or resident of the United States of America, Canada, Australia, the Republic of South Africa, the Republic of Ireland or Japan.

CONTENTS

FORWARD LOOKING STATEMENTS

This document contains forward-looking statements that involve risks and uncertainties. Any statements, other than statements of historical facts, contained in this document, including statements regarding the Group's future financial position, business strategy and plans, business model and approach and objectives of management for future operations, are forward-looking statements. Generally, the forward-looking statements in this document use words like "anticipate", "believe", "could", "estimate", "expect", "future", "intend", "may", "opportunity", "plan", "potential", "project", "seek", "will" and similar terms. The Group's actual results could differ materially from those anticipated in the forward-looking statements as a result of many factors, including the risks faced by the Group which are described in Part II and elsewhere in this document. Investors are urged to read this entire document carefully before making an investment decision. The forward-looking statements in this document are based on the relevant Director's beliefs and assumptions and information only as of the date of this document, and the forward-looking events discussed in this document might not occur. Therefore, investors should not place any reliance on any forward-looking statements. Except as required by law or regulation, the Directors undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future earnings or otherwise.

PLACING STATISTICS

Placing Price	10 pence
Number of Existing Ordinary Shares	184,211,000
Number of Placing Shares	30,000,000
Number of Ordinary Shares in issue on Admission	214,211,000
Number of warrants outstanding at Admission*	21,630,000
Number of Ordinary Shares in issue assuming full exercise of the Warrants	235,841,000
Placing Shares as a percentage of the Enlarged Share Capital	14.0 per cent.
Placing Shares as a percentage of the Enlarged Share Capital, assuming the full exercise of all outstanding warrants	12.7 per cent.
Percentage of the Enlarged Share Capital held by the Directors at Admission	13.8 per cent.
Gross proceeds of the Placing	£3 million
Estimated proceeds of the Placing receivable by the Company (net of expenses)	£2.5 million
Market capitalisation of the Company at the Placing Price on Admission	£21.4 million
AIM symbol	ORCP
ISIN	GB00B23JN426

* – includes the warrants to be issued to Libertas and Novus on Admission. Full details of all outstanding warrants are set out in paragraph 6 of Part V of this document.

EXPECTED TIMETABLE OF PRINCIPAL EVENTS

Publication of this document	14 April 2011
Payment to be received from Placees (other than through CREST) pursuant to the Placing in cleared funds	3.00 p.m. on 14 April 2011
De-listing from PLUS becomes effective	close of business on 19 April 2011
Admission effective and dealings in the Enlarged Share Capital expected to commence on AIM	20 April 2011
CREST accounts expected to be credited with the Placing Shares (where applicable)	20 April 2011
Definitive share certificates for the Placing Shares (where applicable) to be despatched by	28 April 2011

Each of the times and dates in the above timetable is subject to change. All references are to London time unless otherwise stated. Temporary documents of title will not be issued.

EXCHANGE RATES

For the purposes of this document, save in relation to the Group's historical contractual commitments and historical financial information, the exchange rates used are PKR 130 to £1 and US$1.6 to £1.

DEFINITIONS

The following definitions apply throughout this document, unless the context requires otherwise:

"1985 Act"	the Companies Act 1985 (as amended);
"2006 Act"	the Companies Act 2006;
"Admission"	admission of the Enlarged Share Capital to trading on AIM and such admission becoming effective in accordance with the AIM Rules for Companies;
"AIM"	the market of that name operated by the London Stock Exchange;
"AIM Rules for Companies"	the rules and guidance notes for AIM companies published by the London Stock Exchange, governing companies whose shares are admitted to AIM;
"AIM Rules for Nominated Advisers"	the rules issued by the London Stock Exchange which set out the eligibility, ongoing obligations and certain disciplinary matters in relation to Nominated Advisers;
"Aquaterra"	RPS Aquaterra, part of the RPS Group, an international water and environmental company;
"Articles"	the articles of association of the Company, as amended from time to time;
"Bankable Feasibility Study"	a report comprising of, *inter alia*, a series of technical and financial studies to be prepared by independent experts to assist the Company in determining whether the proposed Block VI, Thar Coalfield mine project is capable of being developed at a sufficient return to justify the capital and managerial resources that must be committed to the project;
"Board" or "Directors"	the directors of the Company as at the date of this document, whose names are set out on page 32 of this document;
"Capita Registrars"	Capita Registrars Limited, a company incorporated in England and Wales with registered number 02605568 of The Registry, 34 Beckenham Road, Beckenham, Kent BR3 4TU
"certificated" or "in certificated form"	the description of a share or other security which is not in uncertificated form (that is, not in CREST);
"City Code"	the City Code on Takeovers and Mergers issued from time to time by or on behalf of the Panel;
"Companies Ordinance"	The Pakistan Companies Ordinance, 1984;
"Company" or "Oracle"	Oracle Coalfields plc, a company incorporated in England and Wales with registered number 5867160;
"Concert Party"	Mr Andrew Neubauer, Starvest Plc, Sunvest Corporation Pty Limited, Mr Bruce Rowan, Anthony Scutt and John Watkins;
"Constitution"	the Constitution of the Islamic Republic of Pakistan, 1973;

"CREST"	the relevant computerised settlement system (as defined in the CREST Regulations), in respect of which Euroclear UK & Ireland Limited is the operator (as defined in the CREST Regulations), to facilitate the holding and transfer of title or interests in securities in uncertificated form;
"CREST Regulations"	the Uncertificated Securities Regulations 2001 (as amended or replaced from time to time) and any applicable rules made under those Regulations, to facilitate the transfer of the title to shares in uncertificated form;
"Dargo" or "Competent Person"	Dargo Associates Limited, an international coal consultancy company, incorporated in England and Wales with registered number 3243885;
"DRD"	Deep Rock Drilling (PVT) Limited, a drilling contractor;
"DTRs"	the Disclosure and Transparency Rules made by the FSA from time to time;
"Enlarged Share Capital"	the issued share capital of the Company immediately following completion of the Placing, comprising the Existing Ordinary Shares and the Placing Shares;
"Existing Ordinary Shares"	the 184,211,000 issued and fully paid Ordinary Shares in issue at the date of this document;
"FSA"	the Financial Services Authority;
"FSMA"	the Financial Services and Markets Act 2000 (as amended);
"Fuel Research Centre"	a research and development institute in Karachi, Pakistan which is part of the Pakistan Council of Scientific & Industrial Research (PCSIR) that undertakes analysis and testing of solid and liquid fuels e.g. coal;
"GA"	Geoscience Associates Limited, a geophysical and hydrogeological contractor;
"GDP"	Gross Domestic Product;
"Group"	Oracle and any direct or indirect subsidiary of Oracle from time to time;
"GSP"	Geological Survey of Pakistan;
"HMRC"	Her Majesty's Revenue and Customs;
"IFRS"	International Financial Reporting Standards;
"IMF"	International Monetary Fund;
"ISIN"	International Securities Identification Number;
"Joint Venture Agreement"	the joint venture agreement dated 6 September 2006 and made between the Company and Sindh Koela (as amended and restated on 17 June 2008), further details of which are set out in paragraphs 12.1 of Part V of this document;
"KhoreWah Exploration Licence"	the exploration licence covering 100 square kilometres in Sindh Province, Pakistan, granted by the Directorate General of Mines and Mineral Development, Government of Sindh, Pakistan on 2 February 2007;

"KhoreWah MOU"	the memorandum of understanding dated 9 January 2007 and made between the Sindh Coal Authority, Sindh Koela and the Company, relating to the KhoreWah Coalfield in District Badin, Sindh Province, Pakistan, further details of which are set out in paragraph 12.5.1 of Part V of this document;
"Libertas"	Libertas Capital Corporate Finance Limited, the Company's nominated adviser and broker, a member of the London Stock Exchange and authorised and regulated in the United Kingdom by the FSA;
"Libertas Warrant"	the conditional agreement dated 14 April 2011 between the Company (1) and Libertas (2) granting Libertas the right to subscribe for Ordinary Shares, details of which are set out in paragraph 6.4 of Part V of this document;
"London Stock Exchange"	London Stock Exchange plc;
"Mott MacDonald", "MM" or "MML"	Mott MacDonald Limited, an environmental, engineering and management consultancy;
"NEPRA"	the National Electric Power Regulatory Authority of Pakistan, a federal Government agency responsible, *inter alia*, for the setting of tariffs for the generation, transmission and distribution of electric power;
"Novus"	Novus Capital Markets Limited, a member of the London Stock Exchange and authorised and regulated in the United Kingdom by the FSA;
"Novus Warrant"	the conditional agreement dated 14 April 2011 between the Company (1) and Novus (2) granting Novus the right to subscribe for Ordinary Shares, details of which are set out in paragraph 6.5 of Part V of this document;
"NTDC"	the National Transmission and Despatch Company;
"OFEX"	the former name of the primary market operated by PLUS Markets;
"Official List"	the Official List of the FSA;
"Ordinary Shareholder(s)" or "Shareholder(s)"	a holder or holders of Ordinary Shares in the capital of the Company;
"Ordinary Shares"	ordinary shares of 0.1 pence each in the capital of the Company from time to time;
"Pakistan"	the Islamic Republic of Pakistan;
"Pak.Rs." or "PKR"	Pakistani Rupees, the lawful currency of Pakistan;
"Panel"	the Panel on Takeovers and Mergers, which administers the City Code;
"Placees"	subscribers for Placing Shares;
"Placing"	the conditional placing by Libertas of the Placing Shares at the Placing Price pursuant to the terms of the Placing Agreement as described in this document;
"Placing Agreement"	the conditional agreement dated 14 April 2011 between the Company (1), the Directors (2), and Libertas (3), further details of which are set out in paragraph 12.9 of Part V of this document;
"Placing Price"	10 pence per Placing Share;

"Placing Shares"	up to 30 million new Ordinary Shares to be issued by the Company pursuant to the Placing;
"PLUS" or "PLUS-quoted"	the primary market (formerly known as OFEX) operated by PLUS Markets to allow trading in the shares of unquoted companies;
"PLUS Markets"	PLUS Markets Plc;
"Power Policy"	the Policy for Power Generation Projects 2002, a private sector power policy published by the Government of Pakistan in 2002;
"Power Purchase Agreement" or "PPA"	a long term contract, typically negotiated with a local electricity distribution company or Government body, to purchase the power produced by a power plant operator or other electricity generator;
"PPIB"	the Private Power and Infrastructure Board of Pakistan, which facilitates private sector participation and foreign direct investment in power generation in Pakistan;
"Price Bailey"	Price Bailey LLP (member of the Institute of Chartered Accountants in England and Wales), the reporting accountants;
"Prospectus Rules"	the prospectus rules made by the FSA;
"QCA"	Quoted Companies Alliance;
"Regency"	Regency Mines plc, a UK company focussed on mining investment;
"Rules"	the Sindh Mining Concession Rules, 2002, promulgated by the Government of the Province of Sindh;
"SCA"	Sindh Coal Authority;
"SECP"	the Securities & Exchange Commission of Pakistan;
"Shareholders"	holders of Ordinary Shares;
"Sindh Koela"	M/s. Sindh Koela Limited, a company incorporated in Pakistan with registered number K-13196/20060907 whose registered office is at 12-A, Gor Colony, Unit 1 Latifabad, Sindh, Pakistan;
"Sindh Carbon Energy" or "SCE"	M/s. Sindh Carbon Energy Limited, an unlisted public limited company incorporated in Pakistan with registered number 00000013578 / 20070107 whose registered office is at Magsi House, Civil Lines, Hyderabad, Sindh, Pakistan;
"SRK Consulting"	SRK Consulting (UK) Ltd, an independent international consulting group with particular expertise in the field of mining and exploration;
"Sterling" or "£"	pounds sterling, the lawful currency of the UK from time to time;
"St Helen's"	St Helen's Capital plc, the company's PLUS corporate adviser;
"subsidiary" or "subsidiary undertaking"	have the meanings given to them by the 2006 Act;
"TCEB"	the Thar Coal & Energy Board, established in 2008 by the Federal Government of Pakistan and the Provincial Government of Sindh;

"TES Bretby"	TES Bretby Limited, a division of Environmental Services Group Limited;
"Thar Exploration Licence" or "Block VI"	the exploration licence covering 66.1 square kilometres in Sindh Province, Pakistan, granted by the Directorate General of Mines and Mineral Development, Government of Sindh, Pakistan on 14 November 2007;
"Thar MOU"	the memorandum of understanding dated 3 November 2007 and made between the Sindh Coal Authority and SCE relating to the Thar Coalfield in District Tharparkar, Sindh Province, Pakistan, further details of which are set out in paragraph 12.4.2 of Part V of this document;
"UK" or "United Kingdom"	the United Kingdom of Great Britain and Northern Ireland;
"UK Corporate Governance Code"	the UK Corporate Governance Code, the revised code on the principles of good governance and best practice, published by the Financial Reporting Council in June 2010;
"UK Listing Authority"	the FSA acting in its capacity as the competent authority for the purposes of Part VI of FSMA;
"uncertificated" or "in uncertificated form"	recorded on the relevant register of the share or security concerned as being held in uncertificated form in CREST and title to which may be transferred by means of CREST;
"US" or "United States"	the United States of America, its possessions and territories and all areas subject to its jurisdiction or any political subdivision thereof;
"US person"	a citizen or permanent resident of the United States, as defined in Regulation S promulgated under the Securities Act 1933;
"US$" or "$"	the lawful currency of the US from time to time;
"VAT"	UK Value Added Tax;
"WAPDA"	the Water and Power Development Authority of Pakistan, a federal Government agency responsible for the co-ordination of the development of schemes in the water and power sectors within Pakistan;
"Wardell Armstrong"	Wardell Armstrong International, UK based independent engineering and environmental consultants;
"Warrants"	the 21,630,000 existing warrants granting the right to subscribe for Ordinary Shares and the Libertas Warrant and the Novus Warrant as described in paragraphs 6.4 and 6.5 of Part V of this document; and
"World Bank"	an international group of five financial institutions owned by the governments of over 185 countries that commenced operations in 1946 to provide loans and technical assistance to developing and reconstructing countries with the goals of, *inter alia*, reducing poverty, raising living standards, fostering sustainable development and investing in people.

GLOSSARY OF SELECTED TECHNICAL TERMS

The following table provides an explanation of certain technical terms and abbreviations used in this document. The terms and their assigned meanings may not necessarily correspond to standard industry meanings or usage of these terms.

"Air Dried basis" or "AD"	the quality parameter reported as a proportion of the material after it has been dried. On this basis, moisture content is less, but all other parameters will be higher;
"Aquiclude"	a stratum that is impervious to water;
"As Received basis" or "AR"	the quality parameter reported as a proportion of the total material received;
"Ash"	the mineral material left behind when lignite is burnt;
"bar" or "bar(a)"	pressure in bar, (absolute), 1 bar = 1 atmosphere;
"Batter"	the side of the excavated pit outside the limits of the coal, necessarily excavated to prevent the wall of the pit collapsing;
"Batter Angle"	the angle to the horizontal of the batter;
"bcm/t"	bank cubic metres per tonne;
"belt conveyor"	a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end;
"Bench"	A road round the edge of the pit on which mining equipment moves;
"BOP"	balance of plant;
"borehole"	a circular hole or narrow shaft drilled into the ground, either vertically or horizontally to, *inter alia*, collect samples for analysis;
"bucket-wheel excavator"	a continuous-feed machine, usually carried on crawler tracks, consisting essentially of a large cutting wheel with buckets mounted on the periphery;
"Calcium"	an alkaline earth metal found in coal ash;
"Caliper"	A geophysical tool that measures the diameter of a borehole;
"Calorific Value"	sometimes called specific energy, it is the amount of heat released when the lignite is burnt;
"Capex"	capital expenditure;
"CFB"	circulating fluidised bed;
"CNGB"	China Northeast Geological Survey Bureau;
"CO"	carbon monoxide;
"CO_2"	carbon dioxide;
"Core Sample"	coal collected from borehole cores, usually unweathered;
"cored"	a cylindrical sample of earth, mineral or rock extracted from the ground such that the strata are undisturbed in the sample;
"CV"	calorific value;

"DAF"	dry and ash free;
"degC"	degrees centigrade temperature;
"Dump Bench"	a bench on which there is a dump station;
"Environmental Impact Assessment" or "EIA"	an integral part of the planning and decision-making process by which the environmental consequences of a proposed project or work programme are evaluated and alternatives are analysed;
"EPC"	engineer procure and construct;
"ESP"	electrostatic precipitator;
"Equator Principles"	a common set of benchmarks agreed by the majority of the world's leading financial institutions that define certain environmental and social standards to be met when lending to major global investment projects;
"exploration"	the examination of an area by means of surface geological mapping, geophysical techniques, the drilling of boreholes and sampling of coals;
"feedstock"	raw material that can be processed into fuel or energy;
"FGD"	flue gas desulphurisation;
"Fixed Carbon"	the material remaining after moisture, ash and volatile matter has been removed. This is a mathematical calculation, since the ash cannot be removed;
"Fluidised Bed Combustion (FBC)"	the burning of fuel on a bed subjected to an upward gas flow which causes the bed to be suspended resulting in the transference of heat at very high rates;
"flyash"	small solid particles of ash and soot generated when coal, oil or waste materials are burned;
"GCV"	gross calorific value (=HHV, higher heating value);
"geological losses"	losses to be deducted from measured reserves due to geological constraints e.g. faults, washouts, seam splitting;
"Geophysical Logging"	measurement of the variation with depth of selected physical properties of rocks with geophysical measuring tools (sondes) located in boreholes;
"Geophysics"	an exploration technique using a variety of physical examinations such as seismic, nuclear and caliper;
"Gross Calorific Value"	the amount of heat released in laboratory testing for calorific value, when the temperature of all the material and equipment is returned to ambient conditions. In this analysis, the latent heat of vaporisation of the water in the sample is released;
"Groundwater"	water below the ground's surface and below the water table;
"GWh"	a gigawatt hour, 1,000,000 kWh;
"H_2"	hydrogen;
"H_2O"	water or steam;
"H_2S"	hydrogen sulphide;

"H_2SO_4"	sulphuric acid;
"HHV"	higher heating value;
"HP"	high pressure;
"HTW"	high Temperature Winkler gasifer;
"Hydrogeology"	the study of underground water and its control;
"IGCC"	integrated gasification combined cycle;
"indicated resource"	that part of a mineral resource for which quantity and quality can only be estimated with a lower degree of certainty because the sites used for inspection, sampling and measurement are too widely or inappropriately spaced to enable the material or its continuity to be fully defined or its grade throughout to be established;
"inferred resource"	that part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a low level of confidence because it is inferred from geological evidence and assumed but not verified geological continuity;
"interburden"	rock between coal seams;
"JORC" or "JORC Code"	the Joint Ore Reserve Committee. An Australian body responsible for determining acceptable standards for reserve and resource estimation;
"kcal/kg"	kilocalorie per kilogramme;
"kg"	a kilogramme;
"kJ"	kilo-joule;
"Km"	a kilometre;
"kWh"	a kilowatt-hour;
"LHV"	lower heating value;
"lignite"	the lowest rank of coal, characterised by a high moisture content, used predominantly as fuel for steam-electric power generation. A coal is considered a lignite if it contains >20 per cent. *in situ* moisture;
"load shedding"	the process by which an electric utility cuts power to some customers in response to a shortage of available electricity;
"LP"	low pressure;
"magnesium"	an alkaline earth metal found in coal ash;
"Measured Resource"	that part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence because it is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes from locations spaced closely enough to confirm geological and grade continuity;
"mg/Nm^3"	milligrammes per normal metre-cubed;

"Mineable Reserves"	the tonnages of *in situ* coal contained in seams or sections of seams for which sufficient information is available to enable detailed or conceptual mine planning;
"Mm^3"	cubic millimetre;
"moisture"	the water in the lignite;
"mol"	refers to molecular weight;
"mscmd"	million standard cubic metres per day;
"MW"	a megawatt, a measure of power equal to one million watts or one thousand kilowatts, sometimes with 'e' or 'th' to indicate electrical or thermal;
"MWh"	megawatt-hour;
"Mt"	million tonnes;
"N_2"	nitrogen;
"NEQS"	National Environmental Quality Standards established by the Pakistan Environmental Protection Agency;
"Net Calorific Value" or "NCV"	net calorific value (=LHV, lower heating value). The calculated amount of heat release by the lignite when it is burnt and the products and equipment remain above 100°C. In this case the latent heat of vaporisation of the water in the lignite is not released, so the result is lower than Gross CV. Net CV is the amount of heat released in real combustion in a boiler;
"Nm^3"	cubic metres measured under 'Normal' conditions (atmospheric pressure and 0°C);
"NO"	nitric oxide;
"NO_2"	nitrous oxide;
"NO_x"	nitrogen oxides;
"O&M"	operation and maintenance;
"O_2"	oxygen;
"°C"	degrees centigrade temperature level;
"opencast mining"	surface mining of coal seams which may be overlain by variable amounts of overburden;
"open-pit mine"	a mine excavation that is open to the surface;
"open-pit mining"	a surface mining method in which overlaying rock, or overburden, is removed to expose the ore body, which is then drilled, blasted and loaded into trucks or railroad cars for haulage from the pit;
"overburden"	rock overlying the coal seams that must be removed to expose the coal;
"parting(s)"	layer(s) of rock within the coal seam;
"PC"	pulverised coal;
"permeability"	the ability of water to flow through an aquifer;

"PM"	particulate manner;
"porosity"	property of a rock possessing pores or voids;
"PPIB"	the Private Power and Infrastructure Board of Pakistan;
"ppmV"	parts per million by volume;
"Proved Reserves"	the economically mineable part of a Measured Resource;
"Proximate Analysis"	the determination of Moisture, Ash, Volatile Matter and Fixed Carbon;
"Rank"	coals range in composition and properties according to the degree of coalification. Rank is used to indicate this level of alteration; the greater the alteration, the higher the rank. Lignites are low rank coals and anthracites are high rank;
"Reserves"	the quantity of mineral that is calculated to lie within given boundaries and can be demonstrated to be economically recoverable, dependent on certain predetermined limits in respect of thickness, depth, quality and other geological and economic factors;
"Resources"	the amount of coal in place before exploitation;
"RWE"	Rheinbraun Engineering (a division of RWE AG of Germany);
"scf"	cubic feet measured under 'Standard' conditions (atmospheric pressure and 60°F);
"SCR"	selective catalytic reduction of NO_x;
"seam"	a sheet-like deposit or bed of coal;
"Seismic Survey"	production of acoustic or seismic signals when an explosive device is introduced into the ground and which are reflected or refracted back to recording equipment at the surface;
"Shovel"	electric and hydraulic types, for overburden and coal removal;
"Sm^3"	cubic metres measured under 'Standard' conditions (atmospheric pressure and 15°C);
"SO_2"	sulphur dioxide;
"SO_3"	sulphur trioxide;
"Sodium"	an alkali metal found in lignite ash;
"Sonde"	a geophysical device lowered into a borehole to take measurements of the strata;
"SP"	spontaneous potential;
"spoil"	any waste material, for example overburden, which is dug out during excavation and discarded or used elsewhere as fill;
"Spontaneous Combustion"	ignition of coal or lignite by the natural absorption of oxygen on the surface of coal to promote oxidation and produce heat. The propensity to spontaneous combustion is related to rank, moisture content and size of the coal;
"SPR"	single point resistance;

"strata"	a layer of rock or soil with internally consistent characteristics where, generally, each layer is made up of parallel layers that lie upon each other;
"Stripping Ratio (SR)"	the ratio of the amount of overburden to be removed to uncover one tonne of workable coal or lignite;
"Sulphur"	an undesirable element associated with coal of any rank, including lignite. During combustion it produces sulphur dioxide or SO_2 sometimes called SO_x since it has a variable composition as a product of combustion;
"t/h"	tonnes per hour;
"TDS"	total dissolved solids;
"tonne", "T" or "t"	a measurement of mass equal to 1,000 kilograms;
"Total Moisture"	the water content of the lignite as it is mined;
"Truck"	large capacity vehicle usually employed for transporting overburden material from the mine to dump areas; size usually tailored to the size of the earthmoving equipment; not used on public highways;
"Truck and Shovel" or "T&S"	surface mining method using haulage trucks and shovel excavators;
"USGS"	United States Geological Survey;
"Volatile Matter"	the gas, liquids and tars that are vaporised when lignite is heated without air;
"WAPDA"	the Water and Power Development Authority of Pakistan;
"washout"	a channel, resulting from the erosion of a coal seam by wave or river current action, which has filled with sediment; and
"Water Table"	upper limit of the saturated zone below the ground's surface.

DIRECTORS, SECRETARY AND ADVISERS

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PART I

INFORMATION ON THE GROUP

1. Introduction

Oracle Coalfields plc is an independent coal exploration and development company focused on investment development opportunities in the coal sector. Oracle is currently focussing on a coal development project in the Sindh Province, Pakistan which, the Directors believe, has the long-term potential to enhance shareholder value. As at the date of this document, the Company, through its joint venture subsidiary, Sindh Carbon Energy Limited, is interested in a licence in the Sindh Province for Block VI, Thar Coalfield, District Tharparkar. The Directors believe that there is the potential opportunity to establish a viable lignite coal mine and associated power plant in the Company's existing licence area of Block VI, Thar Coalfield which, in the medium to long term, could create an attractive business model with substantial strategic value. The Company also has an interest in the KhoreWah Indus East Coalfield, District Badin, which has been put on hold while the Company proceeds with mine development at Block VI, Thar Coalfield.

The Company is proposing to raise approximately £3 million (before expenses) through the Placing. The net proceeds of the Placing will provide funding principally for the production of a Bankable Feasibility Study in relation to the proposed establishment of a mine on the Group's licence area in Block VI of the Thar Coalfield. The remainder of the funds will be applied to provide general working capital to support the growth and development of the Group's business.

2. History and Development

The Company was incorporated on 5 July 2006 as a UK public limited company and registered under the 1985 Act in England and Wales. Oracle was established for the purpose of evaluating global opportunities for coal development and exploitation. On 6 September 2006, Oracle entered into a Joint Venture Agreement with a partner in Pakistan, Sindh Koela Limited, to pursue coal exploration and extraction opportunities in the coal rich Sindh Province of Pakistan. As part of the agreement, the parties formed a joint-venture company in Pakistan on 23 January 2007, Sindh Carbon Energy Limited, which is owned as to 80 per cent. by Oracle and 20 per cent. by Sindh Koela, in order to explore, develop, mine and operate in this area. Sindh Koela's key shareholders have interests in agriculture and industry in Pakistan and are actively involved at the provincial government level in the Sindh Province, which the Directors believe will assist and facilitate the development of Sindh Carbon Energy. The Company has confirmed that Mr Shahrukh Khan's father, Mr Shafiqur Rehman Khan is currently a holder of 30 per cent. of Sindh Koela. Further details of the Joint Venture Agreement are set out in paragraph 12.1 of Part V of this document.

Following a private placement of 40 million Ordinary Shares at a price of 1 pence each and 15 million Ordinary Shares at a price of 1.3 pence each on 29 June 2007, raising in aggregate £595,000 (gross), the Company achieved admission to trading on PLUS on 2 August 2007. The Company has subsequently raised approximately a further £3 million (gross) from institutional and other investors through private placings to finance and progress the Group's coal exploration and development opportunities in the Sindh Province of Pakistan.

On 2 February 2007, Sindh Carbon Energy was issued an exploration licence by the Directorate General of Mines and Mineral Development, Government of Sindh, for over 100 square kilometres of the Khorewah Indus East Coalfield, at Khorewah, Badin and in November 2007, the Group commenced a drilling programme at Badin. Following completion of an initial three boreholes the Company switched its strategic focus and resources to the second licence area referred to below, which the Directors believe is better suited to more economical opencast mining operations as opposed to the underground mining techniques that will be required at the Badin site.

The second exploration licence was issued to Sindh Carbon Energy on 14 November 2007 by the Directorate General of Mines and Mineral Development, Government of Sindh, covering 66.1 square kilometres of Block VI, Thar Coalfield, District of Tharparkar, Sindh Province. On 14 February 2008, a seven borehole programme was commenced to verify and further evaluate an historic 35-borehole drilling programme conducted in 2006 by the China Northeast Coalfield Geological Survey Bureau. This drilling validation programme was successfully completed within budget in May 2008 and culminated in the definition by Dargo of a 1.4 billion tonnes JORC Measured Resource and Proved Reserves of 371 million tonnes at the Block VI site. The Company has engaged SRK Consulting to prepare the Bankable Feasibility Study for a 4 million tonnes per annum open-cast coal mine. Under the supervision of SRK Consulting, a number of internationally accredited consultants have been engaged. Aquaterra will produce the hydrogeological model and Wardell Armstrong International will produce the Environmental and Social Impact Assessment. Furthermore, local Pakistani contractors have also been appointed under the supervision of Dargo for the drilling work programme in preparation of the Bankable Feasibility Study.

The Company's overall objective in Pakistan is to become a leading coal producer.

3. An Overview of Pakistan and its Coal Resources

3.1 *Pakistan*

History, population and political environment

The Islamic Republic of Pakistan was formed in 1947 when it gained its independence from British India. Located in South Asia, it comprises an area of approximately 796,095 square kilometres, bordering the Arabian Sea, between India on the east and Iran on the west and bordering Afghanistan and China to the west and north. There are four major provinces: Sindh, Punjab, Balochistan and Khyber Pakhtunkhwa (formerly North-West Frontier Province) (Figure 1). Pakistan also governs the northern areas of Kashmir, which is currently split between Pakistan and India.

Figure: 1 – Map of Pakistan

The population is approximately 187 million (July 2011 estimate), growing at an estimated annual rate of 1.57 per cent., with 35.4 per cent. of the population under the age of 15. Average life expectancy is just over 65 years and the population density is approximately 234 per square

kilometre. Although the capital city is Islamabad, the port city of Karachi, Sindh Province is a major commercial centre. Pakistan's climate varies widely, with hot, dry conditions in the Thar desert along the border with India to the southeast while the northwest is largely temperate with arctic temperatures in the northern mountains. Topological features include the flat Indus plain in the east, several mountain ranges in the north and west and the Balochistan plateau in the west.

The main religions are Muslim, 95 per cent. (Sunni 75 per cent. and Shia 20 per cent.) with other faiths, including Christian and Hindu, representing the remaining 5 per cent. The main indigenous languages are Punjabi and Sindhi, although English is the official language used in the constitution and widely by businesses and most government ministries. The average literacy rate is approximately 50 per cent.

Officially a federal republic, Pakistan has had a long history of alternating periods of electoral democracy and authoritarian military government. Military presidents include General Ayub Khan in the 1960s, General Zia ul Haq in the 1980s and General Pervez Musharraf from 1999 to 2008. The last elections were held in February 2008 when Syed Yousuf Raza Gilani was elected Prime Minister. In 2008, Pakistan was re-admitted into the Commonwealth, formally acknowledging its progress in returning to democracy. Currently the President of Pakistan is Asif Ali Zardari.

Economic and financial environment

Pakistan has historically been regarded as an impoverished and underdeveloped country, suffering from decades of internal political disputes and low levels of foreign investment. However, Pakistan is now a rapidly developing country and major emerging market achieving average GDP growth of 5.2 per cent. per annum for the last eight years. Poverty levels have decreased by 10 per cent. since 2001, but inflation has risen from 7.7 per cent. in 2007 to more than 11 per cent. in 2010, reflecting rising global commodity prices.

The structure of the Pakistani economy has changed from a mainly agricultural base to a strong service industries orientation. Agriculture accounted for approximately 19.6 per cent. of 2007 GDP while the service sector represented 53.7 per cent. and industry 26.8 per cent. Major industries include automotives, textiles, cement, fertiliser and steel. Total exports were estimated to be approximately US$19.7 billion in 2010 while imports were estimated to be approximately US$31.2 billion.

Transport and communications

The transport network in Pakistan is extensive and varied but still under development. New national highways have been built in recent years with the addition of motorways in the early 1990s. The railway network serves the two major ports of Karachi and Qasim as well as the country's four provinces. Airports and seaports have also been constructed within the last thirty years.

Pakistan's telecommunications infrastructure has seen significant improvement following foreign and domestic investment into fixed-line and mobile networks. There remain, however, difficulties in achieving main fixed line services to rural areas.

3.2 ***Coal Resources in Pakistan***

The Directors believe that Pakistan has total estimated coal resources of more than 185 billion tonnes. Although its coal resources are spread across the country, the vast majority (an estimated 99 per cent.) of the known deposits are situated in the Sindh Province.

The Directors believe that the coal deposits in the Tharparkar District of Sindh will be sufficient to meet the fuel/power requirements of Pakistan for many years to come. However, commercial exploitation of the Thar Coalfields will require sizeable investment to develop a large scale mining and power plant, and to upgrade basic infrastructure, including roads, water supplies and telecommunications. The Government of Pakistan is seeking to provide the necessary infrastructure to attract local and foreign investors to the area.

The law regulating mining activities in the country is the Sindh Concession Rules 2002 and a summary of the licensing regime under this act is set out in paragraph 16 of Part V of this document. The Directors believe that the Government of Pakistan is in favour of, and fully supportive of, the country's mining industry which has the potential to become an important contributor to the country's economy and a significant element of the local energy resources.

4. Existing Projects

4.1 *Block VI (Thar Coalfield)*

The Thar Coalfield site is located to the east of the River Indus, south east of the major city of Hyderabad and 380km east of Karachi in Pakistan. The Thar desert covers an area of 22,000km^2, of which the Thar Coalfield comprises 9,100km^2. The Company's flagship project, Block VI, is located 20km north east of the small town of Islamkot, District of Tharparkar, Province of Sindh (see Figure 4 below) and access is via an all weather highway from Karachi, via the towns of Badin and Mithi, which extends to the village of Singharo (Figure 5), using four-wheel drive vehicles.

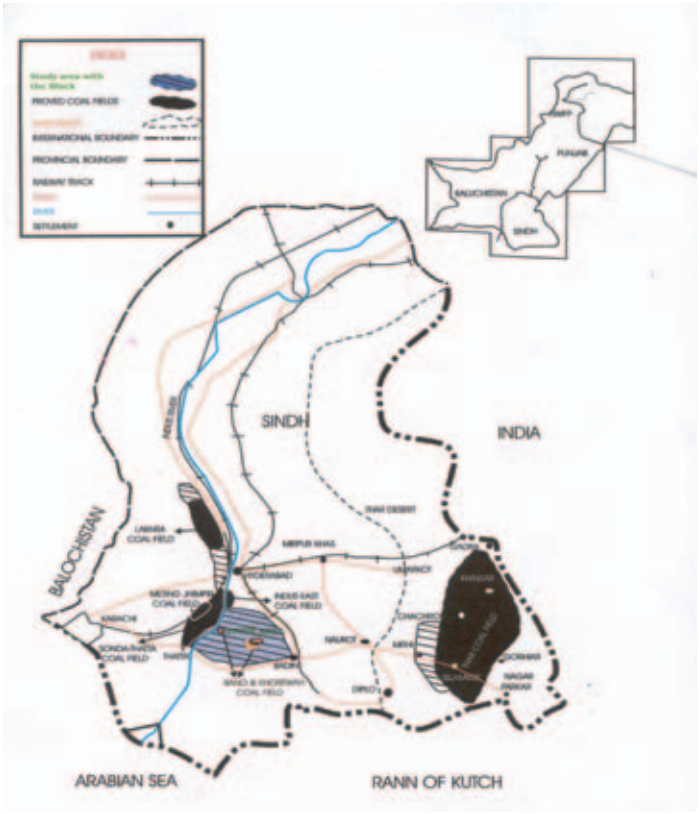


Figure 4: Location Map of Thar Coalfields, Sindh Province, Pakistan

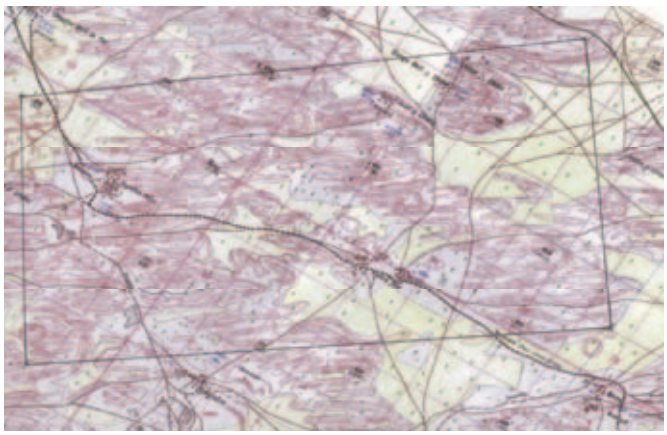


Figure 5: Block VI, Thar Coalfield

The Block VI area is sparsely inhabited with only the two small villages of Ranjho nun and Kharo Jani being occupied by nomadic tribes people. The terrain is predominately flat and semi-arid (Figures 6 and 7). Power transmission lines currently extend to the edge of the Block VI area.

Figure 6: Semi-arid topography at Block VI, Thar Coalfield

Figure 7: Semi-arid topography at Block VI, Thar Coalfield

Block VI is one of only six blocks that have been delineated and allocated to date by the SCA (Figure 8). It is bordered on the east by Block III taken by Cougar Energy, on the south by Block II occupied by a joint-venture between Government of Sindh and a major local Pakistani conglomerate Engro Corporation and on the west by Block IV. The remaining Block I is currently under government tender and Block V is being implemented and managed by a 'Government Body' with Dr Samar Mubarakmand, a nuclear scientist, as its Chairman.

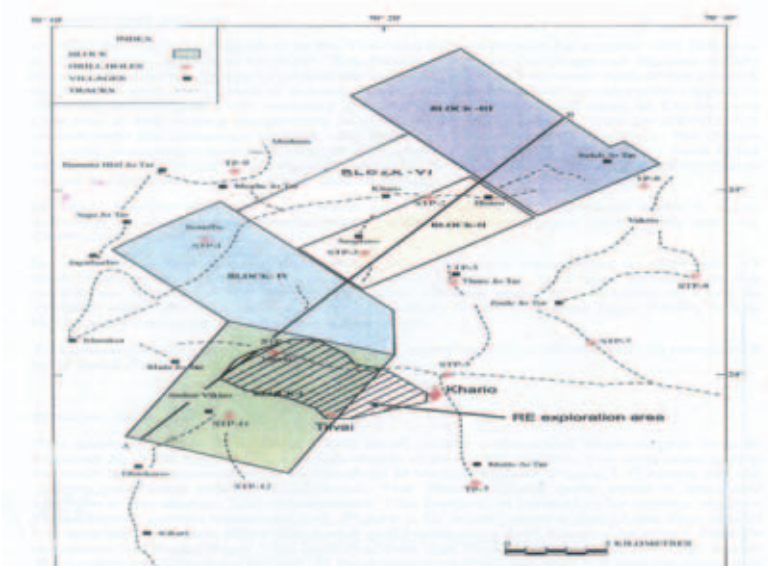


Figure 8: Thar Coalfield – Allocated Blocks

SCE was granted a three year exploration licence for the designated Block VI area on 14 November 2007 by the SCA. The licence area covers a landmass of 66.1km^2 (Figure 9) and this expired on 7 November 2010. An extension was applied for and granted by the Mines & Minerals Development Department, Government of Sindh, for an additional year to 24 November 2011.

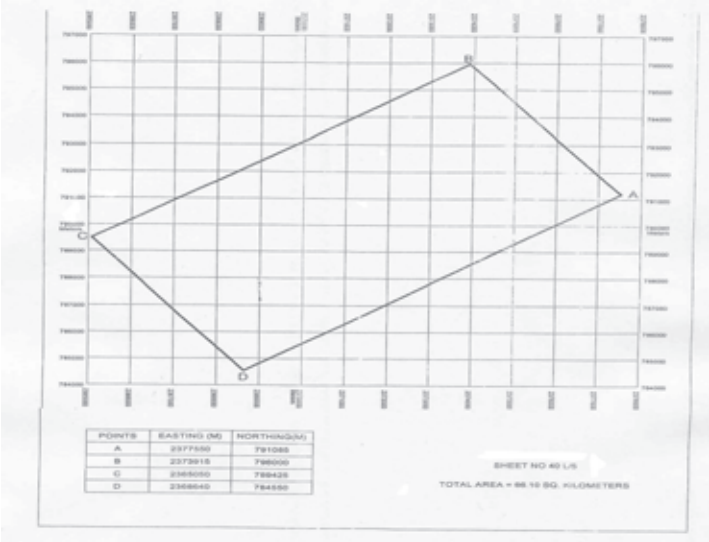


Figure 9: Thar Coalfield Block VI Lease Area (showing grid reference coordinates)

SCE has to date complied with the conditions laid out in the exploration licence including the demarcation of the area, in accordance with the agreed boundaries, and payment of all monies required as security. In addition, all technical results and progress reports from the Company's borehole drilling work programme have been supplied to the Secretary of Coal and Energy Development Department, Government of Sindh (formerly Mines & Minerals Development Department, Government of Sindh), who in turn have provided copies of previous technical works carried out in the Block VI area. The Company's drilling programme and geologging was locally subcontracted to Deep Rock Drilling Limited (DRD) and GeoScience Associates Limited, respectively, with analysis of the results being performed by the Fuel Research Centre (FRC), Pakistan Council of Scientific Research (PCSIR) and Bahria University in Karachi, Structural Soils Limited, UK and TES Bretby, UK. Geochemical analyses are being undertaken by Scientifics Laboratory in UK.

The main characteristics of the area's geology and reserves, identified by Dargo in their assessment to date, can be summarised as follows:

- The depth of the coal is such that a coal mine designed as an open-pit mining operation to access the main continuous lignite seam ranging from 5.6m – 22.9m in thickness should be feasible.
- The total Measured Resource (in line with JORC) is 1.423 billion tonnes of lignite coal with total Proved Reserves of 371 million tonnes of lignite coal.
- The results of the coal quality analysis performed by the FRC and TES Bretby showed good agreement and suggests that the lignite is suitable for power plant usage as well as other industrial applications such as cement manufacturing.

On 3 November 2007, SCE signed a Memorandum of Understanding with the SCA, whereby the SCA agreed, *inter alia*, (i) to facilitate and assist SCE in obtaining existing data on the exploration licence area and conducting a feasibility study, (ii) on completion of the feasibility study, grant a mining lease for an initial period of thirty years, extendable by mutual agreement for a further 10 year period, and (c) assist in the successful conclusion of project agreements in connection with the proposed construction/commissioning and operation of mine-mouth coal fired power plants with an aggregate capacity of 300MW. Further details of this Memorandum of Understanding are set out in paragraph 12.5.1 of Part V of this document.

4.2 ***Badin (KhoreWah Indus East Coalfield)***

The Group's Khore Wah Exploration Licence area is located in the KhoreWah Indus East Coalfield situated to the east of the River Indus, 140km east-northeast of Karachi and 66km south of Hyderabad in Sindh Province, southern Pakistan. SCE was granted an exploration licence on 2 February 2007 by the SCA. The licence area covers 100km^2, including boreholes KHW-1 and KHW-2 drilled by the Geological Survey of Pakistan in 1992 (see Figure 10). On 26 September 2008, SCE submittted an application to extend the licence, which is still pending.

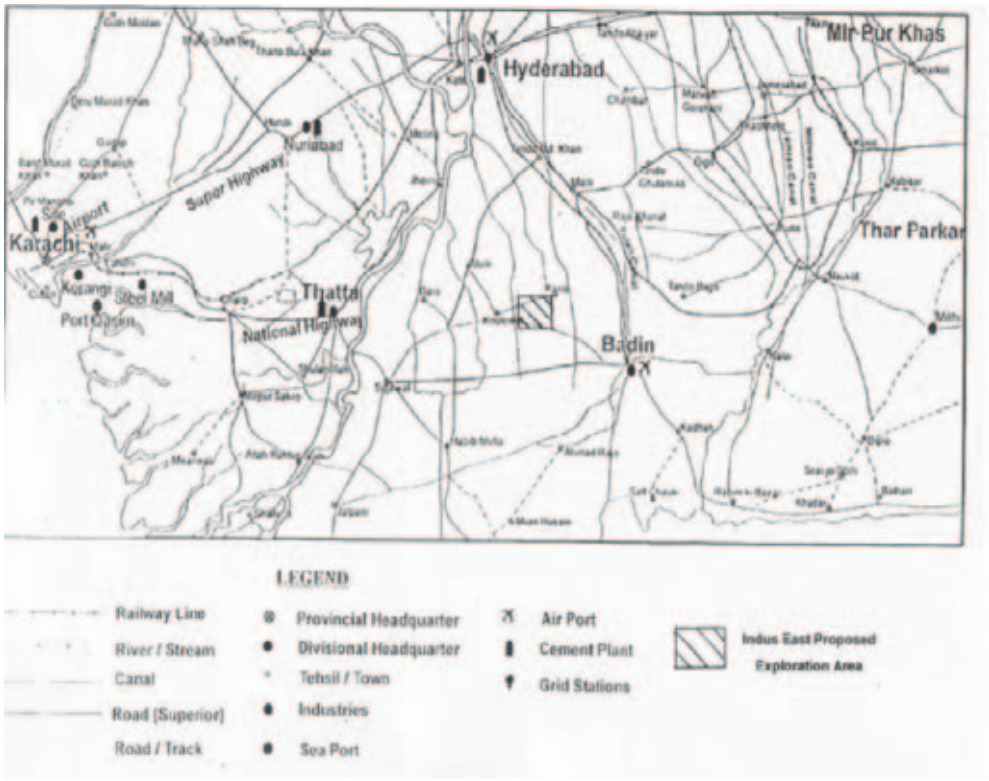


Figure 10: A Map of the Badin Exploration Licence area, KhoreWah Indus East Coalfield

The Group has currently put the Badin exploration work programme on hold as the focus of the Group is to develop the Block VI Thar Coalfield.

4.3 ***Summary of Company's Thar Coalfield Licence, Resources and Reserves***

Details of the Company's current licence interests in Pakistan are summarised below:

Location and Licence Area	*Permit Holder*	*Oracle's Interest*	*Licence Issue Date*	*Status*	*Licence Expiry Date*
Block VI, Thar Coalfield, District of Tharparkar, Sindh Province (66.1km^2)	Sindh Carbon Energy Ltd	80%	14 November 2007	Exploration	24 November 2011

The Company's JORC compliant statement of lignite resources and reserves for Block VI exploration licence area, as reported by Dargo, is as follows:

	Gross 100%				*Net (Oracle's 80% interest)*			
	Inferred Resources Mt	*Indicated Resources Mt*	*Measured Resources Mt*	*Proved Reserves Mt*	*Inferred Resources Mt*	*Indicated Resources Mt*	*Measured Resources Mt*	*Proved Reserves Mt*
Thar Block VI	—	—	1,423	—	—	—	1,138	—
Block VI Total Illustrative Mine Area	—	—	653	—	—	—	522	—
Block VI Illustrative Phase I Open Pit Area	—	—	—	128	—	—	—	102
Block VI Illustrative Phase II Open Pit Area	—	—	—	243	—	—	—	194

5. Strategy

Following Admission, the Directors intend to progress the development of the Company's coal property at Block VI, Thar Coalfield, with the medium/long term objective of taking its licence area into the mine construction and production. The Company will apply for a mining lease as part of the Bankable Feasibility Study in accordance with the memorandum of understanding signed with the SCA. The mining licence will have a term of 30 years extendable by mutual agreement for a further period of 10 years, in accordance with the Rules. A series of independent expert studies have been commissioned and a drilling programme that commenced in August 2010 has been completed in February 2011 as set out in the detailed work programme in Dargo's report in Part III of this document, aimed at producing a comprehensive Bankable Feasibility Study for a 4 million tonnes project. The Company will consider suitable joint-venture partners, where appropriate, to accelerate the development of Block VI, Thar Coalfield Project.

In December 2009, the Company signed a Memorandum of Understanding (MOU) with Karachi Electric Supply Company (KESC) to establish a 300 MW mine-mouth power plant in Block VI with a potential to increase power generation up to 1,100 MW over time. As part of the MOU, KESC will complete a power plant feasibility study and certain data is being shared between the two companies to assist KESC with the aim of completing a bankable document. Oracle is able to enter partnership with additional power plant providers. Separately, in December 2009, Oracle signed an MOU with Lucky Cement to enter a Coal Supply Agreement (CSA). The purpose of entering a CSA in the cement sector is to generate early cash flow for Oracle, particularly during the gestation period before the power plant is commissioned.

SCE will be the vehicle used to develop and operate the proposed coalmine for the Block VI area and will seek to negotiate long term coal supply agreements with other prospective power plant operators and other local industries, for example, cement manufacturers. Subject to the findings of the Bankable Feasibility Study, it is the Directors' intention to sub-contract the operation of the coalmine to a mine operator with international experience or engage a strategic partner.

Furthermore, the Company will actively seek opportunities to acquire new licences both in the Sindh Province and throughout the remainder of Pakistan. In the longer term, the Directors may also look to diversify internationally by way of investment in attractive coal exploration and development projects in other territories. The Company has a diverse Board with extensive overseas operating experience and contacts spanning the Middle East, Europe, South America, Australasia and Africa which will assist in sourcing further project opportunities.

6. An Overview of Pakistan's Electricity and Coal Markets

6.1 *Electricity Market*

As indicated in Dargo's report in Part III of this document, the lignite within the Company's licence area, Block VI, Thar Coalfield, is suitable for use as a power plant fuel. It is therefore envisaged that the coal ultimately produced by SCE would be sold to a mine-mouth power station(s).

The demand for electricity and the supply of feedstock, both to existing and future power plants, is a key challenge for Pakistan. The total installed electricity generating capacity of Pakistan as of 2008-2009 has been estimated at 19,786MW. During the year 2008-2009, the power system of Pakistan generated 91,843 GWh of electricity (see Figure 11), of which 32.3 per cent. was generated by natural gas and less than 1 per cent. was generated by coal.

Installed Capacity – 19,786MW

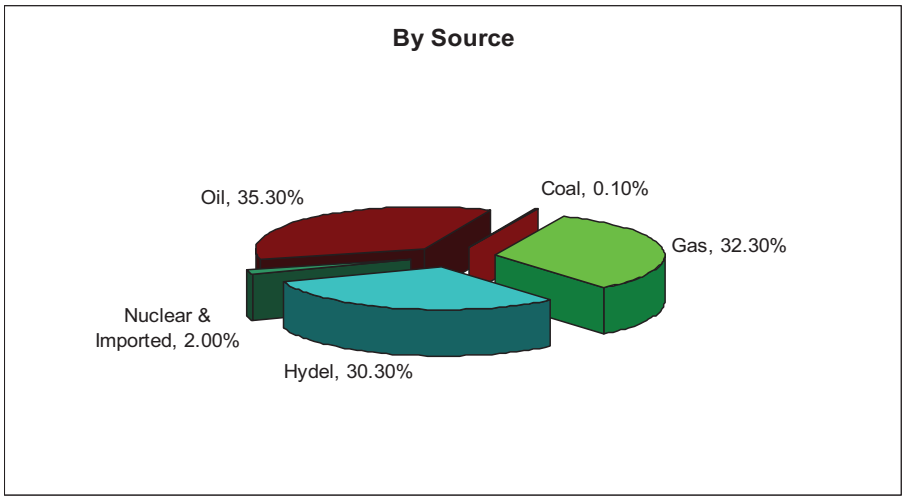


Figure 11: Breakdown of Pakistan's Power sector (2008-2009)

Approximately 52 per cent. of the country's electricity is generated by WAPDA, 9 per cent. by KESC and 39 per cent. is generated by other power producers (see Figure 12).

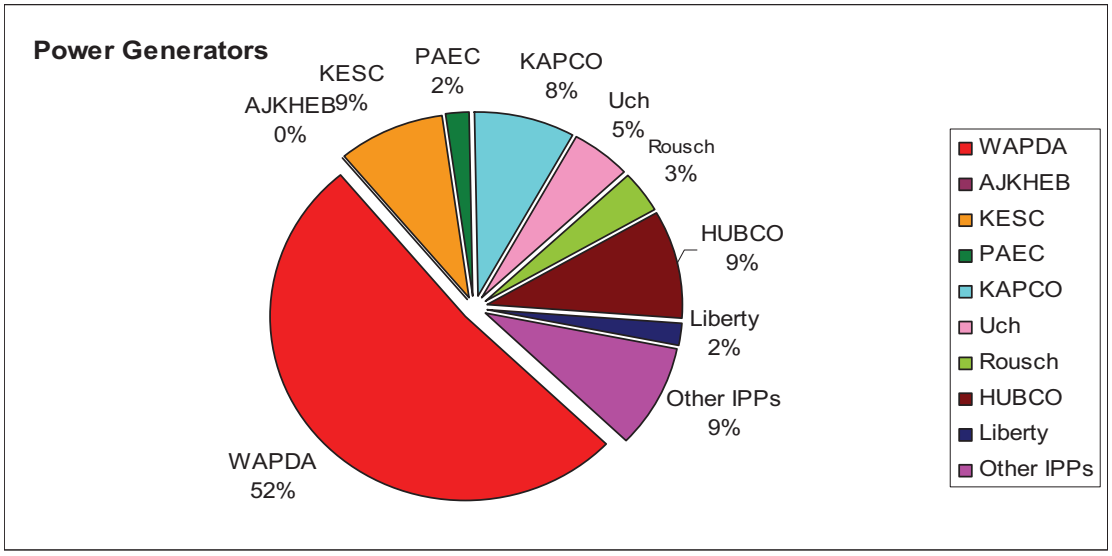


Figure 12: Breakdown of Pakistan's Electricity Generators (2008-2009)

Electricity consumption in Pakistan has been growing at a higher pace than the country's economic growth rate in recent decades due to increasing urbanisation, industrialisation and rural electrification. From 1970 to the early 1990s, the supply of electricity was unable to keep pace with demand that was growing consistently at 9-10 per cent. per annum. In the early 1990s, peak

demand exceeded supply capability by about 15-25 per cent., necessitating load shedding, a process where the electric utility shuts off power for certain hour(s) of the day, of about 1,500-2,000MW in this period.

Electricity demand has been on the increase on the national grid in recent years with few greenfield power projects in development resulting in power generation deficit. The Government of Pakistan envisages 6-8 per cent. per annum economic growth during the next two decades. At this rate, the demand for electricity is outstripping supply with a shortfall in power generation projected from 2011 to 2020 (Figure 13).

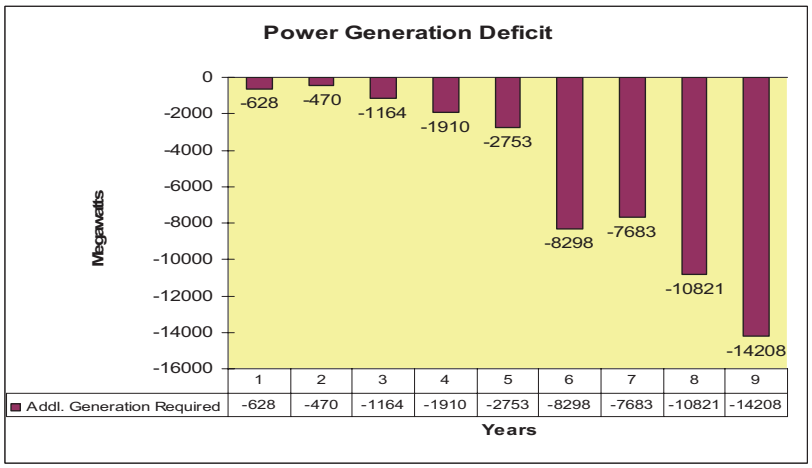


Figure 13: Pakistan's Projected Power Generation Deficit for 2012-2020

The aggregate projected shortfall in power generation between 2011 and 2020 is estimated to be 47,935MW.

6.2 *Coal Market*

As of 2008-2009, coal consumption in Pakistan totalled 8.4 million tonnes per annum, of which 1.3 per cent. was consumed by power generation, mainly WAPDA (see Figure 14). The majority was used for the cement industry (45.3 per cent.) and brick-kiln industry (39 per cent.) with the remainder in coal briquettes or coke which can be used as domestic fuel.

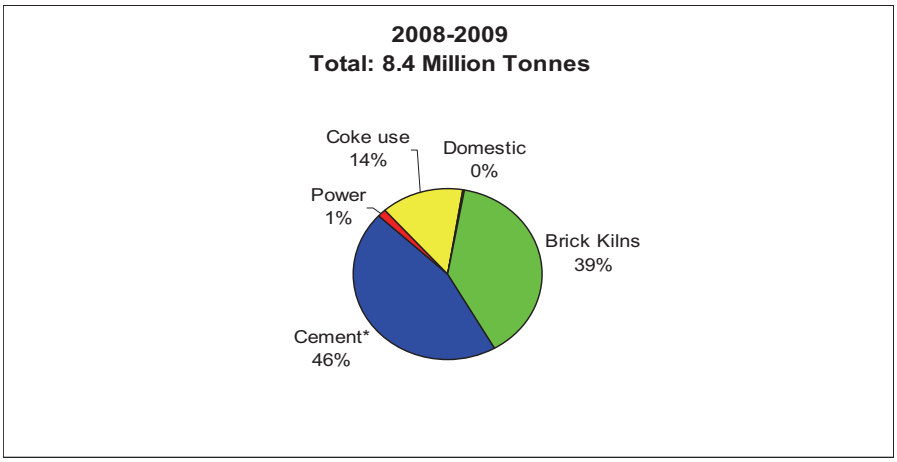


Figure 14: Coal consumption in Pakistan by sector (2006-2007)

Total production from 16 existing coalfields, spread over four provinces, was 3.7 million tonnes in 2008-2009, a small increase to the equivalent production figure of 3.2 million tonnes in 2003-2004. Import of coal for industrial use was approximately 4.6 million tonnes (2003-2004: 2.7 million tonnes).

7. Proposed Mine Project at Block VI, Thar Coalfield

Based on research and pre-feasibility studies performed by Dargo to date, it is believed that the Block VI site could support the development of a mine project of up to 1,100MW generating capacity. For the purposes of their report set out in Part III of this document, Dargo has included an initial illustration of an opencast truck and shovel operation to supply a 300MW power plant, which in their opinion is the most appropriate and technically feasible solution at this stage of the project's assessment. The precise mine design which would be feasible will be the subject of a more comprehensive Bankable Feasibility Study currently underway by SRK Consulting.

7.1 *Illustrative Mine Design*

The CNGB, commissioned by the SCE, drilled thirty five boreholes covering the whole of the Block VI area in 2006, drilling a total of 9,852 metres of which 5,986 metres was cored. SCE has more recently drilled a further seven boreholes to corroborate these historic results and provide further geological confidence in that part of Block VI considered most prospective for opencast mining. The forty two boreholes are evenly spread, have been geophysically logged and all have coal quality data. Accordingly, in light of the simple geology revealed from an analysis of the borehole results with no known dislocations, Dargo state in their report that there is a high level of confidence as to the presence and quantity of lignite, and its thickness distribution, overburden thickness and stripping ratio.

The most prospective area is seen to be the south central and south west part of Block VI, which as shown in the figures below, has the thickest development of the main 2-7 lignite seam (20-28m), most favourable stripping ratios of 5:1 to 7:1 bcm/t and overburden thicknesses ranging from 150-170m.

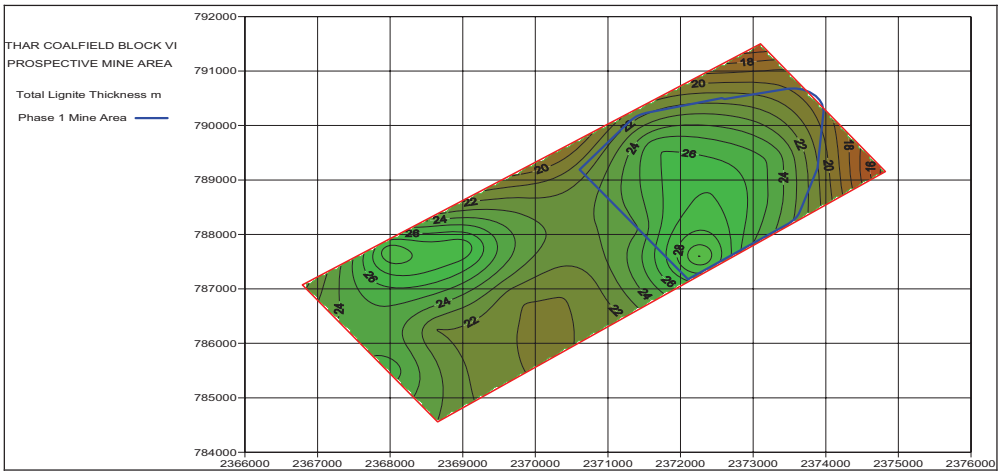


Figure: 15 – Thar Coalfield, Block VI, Prospective Mine Area, Total Lignite Thickness

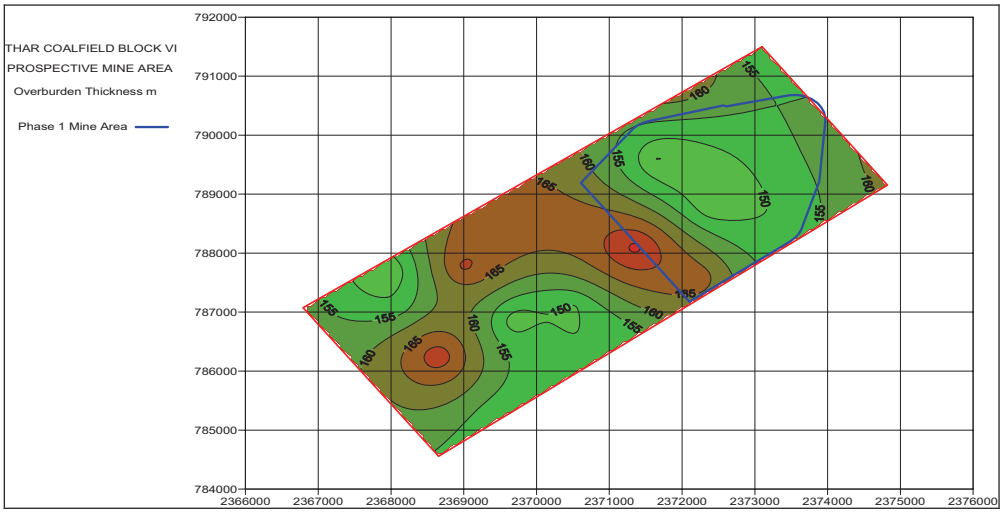


Figure: 16 – Thar Coalfield, Block VI, Prospective Mine Area, Overburden Thickness

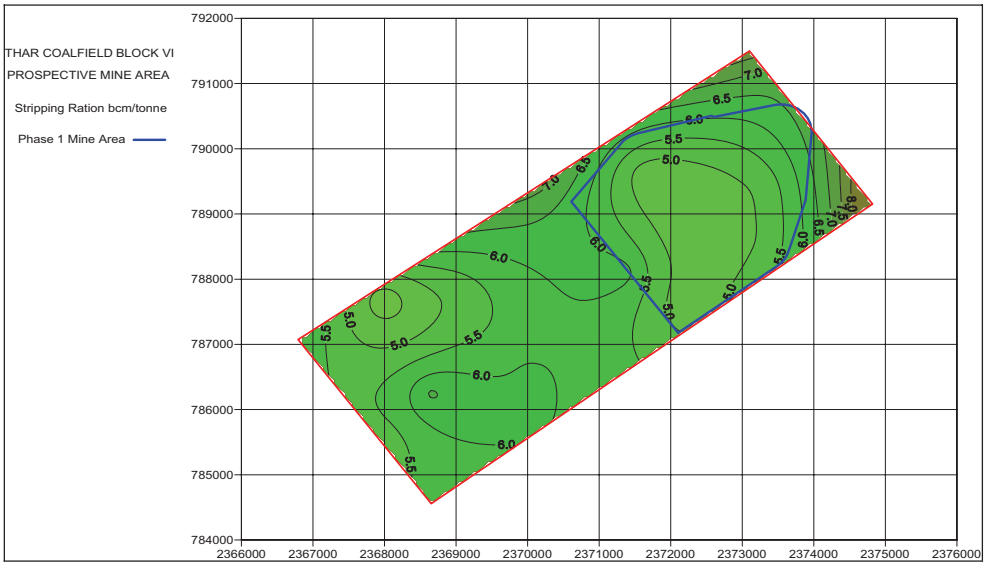


Figure: 17 – Thar Coalfield, Block VI, Prospective Mine Area, Stripping Ratio

In the mining study section of its report, Dargo has performed illustrative calculations for two phases within the prospective delineated mine area which are set out in Figure 18 below.

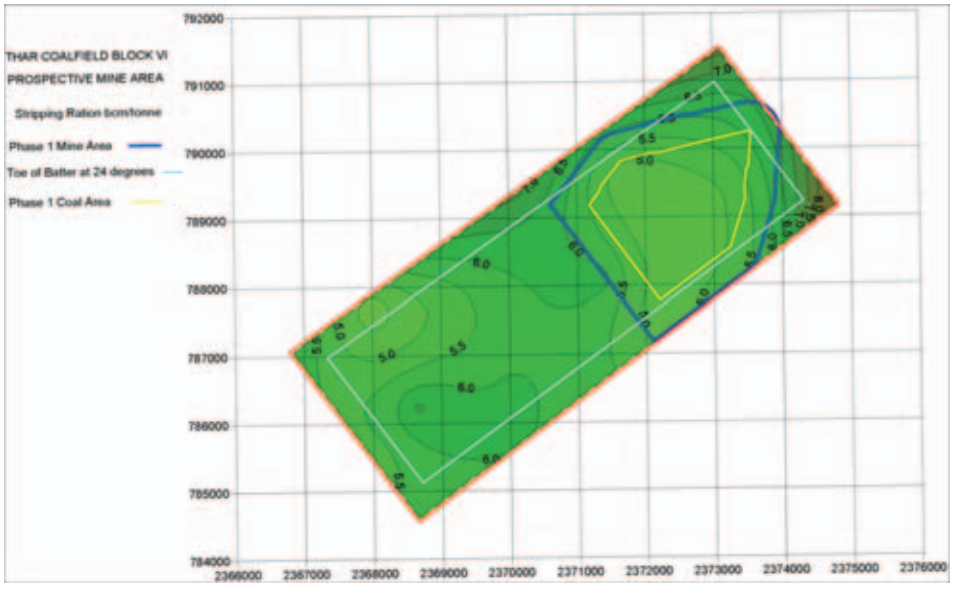


Figure: 18 – Thar Coalfield, Block VI, Prospective Mining Areas

The area envisaged for phase one of an open pit mine is outlined in blue in Figure 18. This initial excavation to open the mine would require an extended period of overburden removal down to the main coal seam level and would result in a greater amount of overburden being removed than would normally take place once the mine configuration and pit geometry is established. During the opening stages of mine construction all overburden would be removed to an out-of-pit dumping area. Lignite resources in the phase one area are calculated at 128Mt, with 885Mm^3 of overburden, resulting in a stripping ratio of 6.91:1 bcm/t. These coal reserves are believed to be sufficient for opening a proposed power plant of 300MW capacity.

The phase two open pit area would follow on from the phase one excavation and lignite resources are calculated at 243Mt with 1,685Mm^3 of overburden, resulting in a stripping ratio of 6.94:1 bcm/t. The second phase of development would enable expansion of the proposed power plant to approximately 800MW of capacity. The spoil would be dumped back into the pit, filling the void behind the working face operations as the mine progresses.

Dargo has considered and proposed a combination of truck and shovel and belt conveyors for the open pit mining operation, and that such mining technology is preferred due to the proposed configuration of the pit and the planned output of the mine.

The illustrative mine design, further details of which are set out in Dargo's report in Part III of this document, allows for the production of 2.5 million tonnes of lignite per annum of which the proposed power plant would absorb 1.75 million tonnes and the balance of 0.75 million would be available for industrial sales.

For the purpose of completing a full feasibility and definitive mine study, a detailed drilling programme, logging and sampling was initiated in September 2010 and completed in February 2011. The Bankable Feasibility Study is now for a 4 million tonnes per annum coal mine production as a more cost effective mining operation.

7.2 ***Illustrative Power Plant Design***

As part of their report in Part III of this document, Dargo commissioned a desktop study from Mott MacDonald for the illustrative 300MW lignite fired power plant. Mott MacDonald assessed a variety of power generation technologies in use around the world in similar situations and have provisionally concluded that the most appropriate available technology for a unit size of 300MW, in this particular instance, is the sub-critical conventional fired boiler. This technology is commercially proven in the considered output range.

Based on this technology, it is estimated that 240t/h of raw lignite is required, resulting in an annual supply requirement of approximately 1.75Mt. Limestone consumption is estimated at 0.11Mt per annum and the resultant fly ash should be suitable for disposal in the mine dumps or for sale to the cement industry. It is recommended that air cooled condensers would be needed to avoid large water consumption and water losses.

The coal within the Block VI licence area is lignite to sub-bituminous in rank, with a mean calorific value of 3,500 kcal/kg. ash content of 7.5 per cent., moisture content of 40 per cent. and a sulphur content of 1.2 per cent. Although the sulphur content appears to be relatively high and would not, if burnt in a pulverised solid fuel burner, meet emission guidelines from the World Bank for a new power plant, the use of a sub-critical fluidised bed boiler for the station would largely eliminate sulphur dioxide emissions. The coal properties and the required unit size indicate that the most appropriate technology for this project would be a sub-critical conventional fired boiler/fluidised bed boiler.

Further information with regards to the quality and suitability of the lignite at Block VI for use in a coal fired power plant is set out in section 6 of Dargo's report.

7.3 ***Environmental and Social Impact Assessment (ESIA)***

As part of their report in Part III of this document, Dargo commissioned a desktop study from Mott MacDonald in respect of the environmental implications of the proposed integrated mine and power plant project. Accordingly, Mott MacDonald considered the environmental legal framework in Pakistan relating to natural resources, which is currently implemented by the relevant provincial government. In the case of Block VI, the Environmental Protection Agency of Sindh will require an Environmental Impact Assessment to be submitted before certification of the project can be issued.

Historically, federal legislation has provided for limited environmental conservation or protection, but the proposed ESIA for Block VI will need to consider all social and cultural issues affecting the area. The Pakistani Environmental Protection Agency has established National Environmental Quality Standards (NEQS) relating to industrial gaseous emission and liquefied industrial effluents. All power plants using coal or oil as fuel are required to comply with the NEQS. In addition, separate air quality standards apply in relation to sulphur dioxide and nitrogen oxides which will also need to be complied with. Furthermore, any applications for international project financing will require compliance with the World Bank's environment, health and safety (EHS)

guidelines and/or the Equator Principles. Pakistan has also ratified the Kyoto Protocol on Climatic Change, which formally came into effect in 2005. The Kyoto Protocol is an international treaty designed to limit global greenhouse gas emissions.

The Group takes its environmental responsibilities seriously and the ESIA will be a key component of the Bankable Feasibility Study. Further information on the ESIA is set out in section 5 of Dargo's report.

The Company engaged Wardell Armstrong International, a reputable international name in the field of environmental assessment, to conduct a comprehensive Environmental & Social Impact Assessment study.

After a site visit by a Wardell Armstrong team in 2009, they completed and submitted a Scoping Report which Oracle team presented to the Coal & Energy Development Department, Government of Sindh (formerly Mines & Mineral Development Department, Government of Sindh) and Sindh Environmental Protection Agency (SEPA). The Report covered all the studies relevant to a Scoping Report as required for an ESIA of international standard: it followed the Equator Principles and IFC performance standards which included legislative framework, project description, sustainable development and use of renewable resources, baseline environmental and social conditions, protection of human health, cultural properties and bio-diversity including endangered species and sensitive eco-systems. The Report also dealt with occupational health and safety, socio-economic impacts, land acquisition and land use, involuntary resettlement etc.

Wardell Armstrong is now working on the Baseline Study which is the second phase of the ESIA. All the aspects in the Baseline Study identified and briefly dealt with in the Scoping Report is being comprehensively elaborated, requiring a number of visits by personnel of Wardell Armstrong to have interaction with people, including Non-Governmental Organisations operating in Tharparkar, relevant to their studies and to carry out further assessments of the environment and the location.

7.4 ***Royalties, local taxes and double taxation treaty***

Under the Sindh Mining Concession Rules, 2002 published by the Government of Sindh Mines & Mineral Development Department, the holder of a mineral title or mineral permit shall, in the course of any exploration or mining operations carried out by the holder of the concession, be liable to pay a royalty to the Government of Sindh. The current royalty payment for coal is 7.5 per cent. on the value at the pit mouth, subject to a minimum of Pak.Rs. 60 per tonne.

The rate of corporation tax is 35 per cent. for both public and private companies. Excise duty, withholding tax and sales tax may also be levied.

The UK-Pakistan double tax treaty convention is set out in The Double Taxation Relief (Taxes on Income) (Pakistan) Order 1987. The convention makes provision for profits arising from a permanent establishment to be taxed in the country in which the permanent establishment is situated. The profits of the Joint Venture Company trading in Pakistan will therefore be subject to tax in Pakistan in accordance with the tax legislation in that country.

Profits may be repatriated to the UK through the payment of dividends. The rate of withholding tax which may be applied in the country of source (Pakistan) on dividends must not exceed 10 per cent. where the payer of the dividends is a Pakistani company engaged in industrial enterprises and the UK recipient of the dividends controls at least 25 per cent. of the voting power, where the undertaking was set up in Pakistan after the date of the convention. Article 23 of the convention contains the provisions for the elimination of double taxation under the treaty.

Should profits of the Pakistani subsidiary be subject to tax in the UK and in Pakistan, due to the location of management and control of the Company, Pakistani tax payable under the laws of Pakistan and in accordance with the convention, on profits, income or chargeable gains from sources within Pakistan (excluding in the case of a dividend, tax payable in respect of the profits out of which the dividend is payable) shall be allowed as a credit against any UK tax computed by reference to the same profits, income or chargeable gains.

A dividend paid by a company which is resident in Pakistan to a company which is resident in the UK will be subject to UK Corporation Tax. In the majority of cases however the dividend will be exempt providing one of the following exempt conditions apply:

(i) the recipient controls the payer;

(ii) the dividend is made in respect of ordinary shares that are non-redeemable;

(iii) the distribution is in respect of a portfolio holding where the recipient holds less than less than 10 per cent. of share capital and is entitled to less than 10 per cent. of profits and assets on winding up;

(iv) the distribution is derived from a transaction not designed to reduce tax; or

(v) the dividend is not paid in respect of a share accounted for as a liability.

8. Competition

There is evidence of small scale coal mining in the provinces of Pakistan. In the Sindh Province, coal is in abundance and is well represented in Tharparkar. Other areas where coal exploration and mining is planned within the Sindh Province include Sonda Jherruk and Indus East. Currently the Mines & Mineral Development Department, Government of Sindh, has allocated a total of six blocks covering an area of approximately 300km^2 out of the total 9,100km^2 area of the Thar Coalfields. There is a Government of Sindh programme to create additional blocks in the Thar Coalfield. Block VI is currently held by the Company's joint-venture company, SCE, whilst the other Block I is under government tender, Block II is a joint-venture between Government of Sindh and Engro Corporation, Block III is held by Couger Energy of Australia, Block IV is not known and Block V is being implemented and managed by a 'Governing Body' with Dr Samar Mubarakmand, a nuclear scientist as its Chairman.

To date, the Directors believe that the Company's work programme on Block VI is more advanced than the programmes of the other licence holders in the Thar Coalfield area. The Directors are not aware of the publication of any JORC resource statements in respect of any of Blocks I to V. All historic resource classification on the Thar Coalfields has been undertaken by the Geological Survey of Pakistan, United States Geological Survey, RWE the German energy group, John T. Boyd, Shenhua and CNGB contracted by the SCA.

9. Details of the Placing and Use of Proceeds

Oracle is proposing to issue up to 30 million Placing Shares pursuant to the Placing at the Placing Price to raise up to approximately £3 million before expenses (approximately £2.5 million net of expenses).

The net proceeds of the Placing will provide general working capital to support the growth and development of the Group's business.

Further details of Oracle's planned work programme for the Bankable Feasibility Study in connection with Block VI are contained in Dargo's report in Part III of this document. The Group will require further funding to bring any of its projects into production.

The Placing Shares will represent approximately 14.0 per cent. of the Enlarged Share Capital, will be fully paid and will rank equally in all respects with the Existing Ordinary Shares. The Placing Price of 10 pence per Placing Share is payable in full on acceptance.

On Admission, the Directors will hold approximately 13.8 per cent. in aggregate of the Enlarged Share Capital.

The Company and the Directors have entered into the Placing Agreement with Libertas. The Placing has not been underwritten. Libertas has conditionally agreed to use its reasonable endeavours to procure places for all the Placing Shares at the Placing Price. The Placing is conditional, *inter alia*, upon Admission becoming effective on or before 20 April 2011, or such later time and date as the Company and Libertas may agree, but in any event not later than 16 May 2011. The Placing Agreement contains provisions entitling Libertas to terminate the Placing Agreement at any time prior to Admission in certain circumstances.

Regency Mines plc has agreed that it will defer its right to subscribe for additional Ordinary Shares pursuant to the agreement summarised in paragraph 12.8 of Part V until the Company has renewed its directors' authority to allot shares and to do so for cash on a non pre-emptive basis in general meeting. It is anticipated that these authorities will be proposed at the next annual general meeting of the Company which the Directors intend to hold in June 2011 following which Regency will be issued with 30,427,750 Ordinary Shares at 10p per share. Further details are set out in paragraph 12.15 of Part V.

Further details of the Placing Agreement are set out in paragraph 12.9 of Part V of this document.

10. Directors, Senior Management and Employees

Directors

The Board consists of two executive Directors and one non-executive Director.

Shahrukh Khan (aged 39) – Chairman and Chief Executive Officer

Shahrukh was educated in the USA (at Harvard University) and in the UK. He was awarded a BA in business administration and economics (finance and international business) at Richmond, the American International University in London. He has over 9 years' experience in project finance, with a particular focus on the natural resources and infrastructure related sector. He has worked on a number of international assignments predominantly in the Middle East, South Asia and China. Shahrukh has specialist expertise in large and complex projects, including project valuation and investment appraisal, financial modelling, feasibility studies and other project finance related services. He is a non-executive director of All Star Minerals plc, which commenced trading on PLUS in April 2006. He is also a director of Al Nasr Europe Limited, a London-based trading and finance company (a sister company of Al Nasr Trading and Industrial Corporation of Saudi Arabia) which is involved in the metals and minerals industries and the energy sector.

Martin Roderick Stead FCCA (aged 66) (known as Roderick) – Interim Finance Director

Roderick was awarded a BSc in Economics from the London School of Economics and is a qualified accountant, FCCA. He brings considerable experience in a wide variety of management roles in the oil, gas, coal, mining and forestry industries. This includes Board experience in over 25 companies. Between 1967 and 2003, Roderick worked in several international locations for the Royal Dutch Shell Group including Venezuela, Singapore, Thailand and Chile. Positions held included working as the Finance Controller for Shell Expro, the operator of the Shell/Exxon North Sea joint venture and Finance Director in Shell Chile. From 1996-1999, he was leader of the financing team for Oman LNG LLC, prior to becoming leader of the financing team for Nigeria LNG Limited. Roderick has led project finance negotiations with investment banks, multilateral agencies, export credit agencies and commercial banks. He has also worked on structuring acquisitions, privatisations and divestments. Roderick has extensive experience in financial management, in internal audit and the assessment of controls in high risk environments.

Anthony Charles Raby Scutt (aged 70)(known as Tony) – Non-Executive Director

Tony is a qualified Chartered Secretary and a Certified Internal Auditor with the U.S. Institute of Internal Auditors. He has over 30 years of financial management experience with Shell International Petroleum and has worked in many parts of the world, including Madagascar, East and Central Africa, South Vietnam, Cambodia, the Philippines, Gabon and latterly as the Chief Internal Auditor of Shell UK. He then went on to become an investment analyst, writer and investor. Tony is a non-executive director of AIM-listed Beowulf Mining plc and of Starvest plc and PLUS-quoted Agricola Resources plc.

The Company currently engages bookkeeping services from Tearne Foulsham Limited, a company which provides the services of Edward Taylor, Secretary of the Company. MI & Co. provide book keeping for SCE. The Board believes that these services are appropriate for the size of the Group and the scale of its operations at this time. The potential appointment of a full time financial director will be reviewed regularly by the Board, on an ongoing basis, in conjunction with Libertas. Roderick Stead has been appointed to serve as the Interim Finance Director in addition to his other duties on a part-time basis until a full time financial director is appointed. The Company also intends to appoint a suitably qualified non executive chairman to the Board after Admission.

Senior Management

Following Admission, the Company intends to appoint Project Managers with expertise in mining and power. It is envisaged that upon successful completion of the Bankable Feasibility Study, additional senior personnel will be appointed as appropriate to take the business into the mining and production phase.

Employees

Currently the Company has no employees in the UK, including SCE in Pakistan.

11. Current Trading and Prospects

The Directors remain confident about the prospects for the Group's further development during the current financial year. However, the Group's progress may be adversely impacted by a number of factors, which include those described more fully in the section titled "Risk Factors" set out in Part II of this document.

As at 31 March 2011, the latest practicable date before the publication of this document, the Group had cash resources of approximately £1.1 million.

12. Admission and Reasons for Admission

Application has been made to the London Stock Exchange for the Enlarged Share Capital to be admitted to trading on AIM. Admission is expected to become effective and trading in the Enlarged Share Capital is expected to commence on 20 April 2011. The Directors believe that the Company's admission to trading on AIM will assist the Company by providing it with access to larger institutional investors, enhancing its ability to attract and retain staff and providing Shareholders with a more liquid market for their Ordinary Shares.

The Ordinary Shares are currently admitted to and traded on PLUS. In connection with Admission, the Company intends to cancel the admission of the Ordinary Shares on PLUS. This does not affect the ability to trade the Ordinary Shares on the PLUS Markets' electronic trading platform.

13. Dividend Policy

The Company does not currently pay a dividend and the current intention of the Directors is to aim for capital growth by establishing the commercial viability of the coal deposits in its licence areas. The Directors do not intend to commence the payment of dividends until it becomes commercially prudent to do so, having regard to the availability of distributable profits and the need to retain funds to finance the Company's future growth. Payment of a dividend is unlikely until the Company is generating revenues from production.

14. Corporate Governance

The Board recognises the importance of appropriate corporate governance, commensurate with the size of the Company and the resources available to it. It is the Directors' intention to use their reasonable endeavours to ensure that the Company will comply with the QCA Corporate Governance Guidelines for Smaller Quoted Companies.

The Company has appointed two non-executive Directors to the Board, one of which has taken up a temporary role as Interim Finance Director. The role of the non-executive Directors includes monitoring the performance of the Company's executive Director and participating in all decisions of the Board relating to capital expenditure. The non-executive Directors will also participate in various Board committees which will have formally delegated duties and responsibilities. The Directors intend that Board meetings, at which all Directors will be invited to participate either in person or by telephone, will be held at least six times per year.

The Board has established an audit committee and a remuneration committee, with formally delegated duties and responsibilities.

The audit committee will be chaired by Anthony Scutt and the other member will be Shahrukh Khan. It is intended that upon appointment of a full time finance director, Roderick Stead will take over as Chair of this committee and Shahrukh Khan will resign from the committee. The Audit Committee is

responsible for determining the application of the financial reporting and internal control principles, including reviewing the effectiveness of the Company's financial reporting, internal control and risk management procedures and the scope, quality and results of the external audit.

The Company has also established a Remuneration Committee, chaired by Tony Scutt and currently comprising Roderick Stead. The Remuneration Committee is responsible for reviewing the performance of the executive Director(s) and will set their remuneration, determine the payment of bonuses to them and consider the introduction and operation of bonus and option schemes. The executive Directors will not take part in discussions concerning their remuneration.

The Company will take all reasonable steps to ensure compliance by the Directors and applicable employees with the provisions of the AIM Rules relating to dealings in securities of the Company and has adopted a share dealing code for this purpose.

15. Warrants

The Directors intend that the structure of employee remuneration at the Company will provide a high level of incentivisation to promote share ownership to future staff. Since its incorporation, the Company has to date issued Warrants to certain, advisers, and investors over 21,030,000 new Ordinary Shares representing approximately 11.4 per cent. of the Company's existing issued share capital. Further details of the exercise prices and exercise periods of these existing Warrants are set out in paragraph 6 of Part V of this document.

In addition, pursuant to an agreement dated 14 April 2011, the Company has granted Libertas a warrant, subject only to Admission, to subscribe for 300,000 Ordinary Shares at the Placing Price, representing 1 per cent. of the Placing Shares. The Libertas Warrant may be exercised at any time during the period of five years from the date of Admission. Further details of the Libertas Warrant are set out in paragraph 6.4 of Part V of this document.

In addition to the Libertas Warrant, pursuant to an agreement dated 14 April 2011, the Company has granted Novus a warrant, subject only to Admission, to subscribe for 300,000 Ordinary Shares at the Placing Price, representing 1 per cent. of the Placing Shares. The Novus Warrant may be exercised at any time during the period of five years from the date of Admission. Further details of the Novus Warrant are set out in paragraph 6.5 of Part V of this document.

Accordingly, following Admission, Warrants will be in issue in respect of, in aggregate, approximately 10.1 per cent. of the Enlarged Share Capital.

16. Taxation

Due to the nature of the Group's business, the issue of Ordinary Shares will not rank as a qualifying investment for the purposes of the Enterprise Investment Scheme nor will it be a "qualifying holding" for the purposes of investment by Venture Capital Trusts.

Further information regarding taxation in relation to the Placing is set out in paragraph 11 of Part V of this document. If you are in any doubt as to your own personal tax position you should consult your own independent financial adviser immediately.

17. Settlement and CREST

CREST is a computerised paperless share transfer and settlement system enabling securities to be evidenced otherwise than by a certificate and transferred otherwise than by a written instrument in accordance with the CREST Regulations. The Company's articles of association contain provisions concerning the transfer of shares which are consistent with the transfer of shares in dematerialised form in CREST under the CREST Regulations. The Ordinary Shares are eligible and enabled for settlement through CREST. Accordingly, settlement of transactions in the Ordinary Shares following Admission may take place within the CREST system if relevant Shareholders so wish. CREST is a voluntary system and Shareholders who wish to receive and retain share certificates will be able to do so.

It is anticipated that on Admission, the Enlarged Share Capital will be capable of being held and settled through CREST.

All the Ordinary Shares will be in registered form. CREST accounts will be credited with Placing Shares in uncertificated form on 20 April 2011 and (where appropriate) share certificates in respect of Placing Shares in certificated form will be despatched by post by no later than 28 April 2011. No temporary documents of title will be issued in connection with the Placing. Pending the despatch of definitive share certificates, instruments of transfer will be certified against the register of members of the Company.

Application will be made for the Enlarged Share Capital to be admitted to trading on AIM. It is expected that Admission will take place and dealings in the Enlarged Share Capital will commence on 20 April 2011.

18. Lock-in arrangements

Each of the Directors has undertaken to the Company and Libertas that, except in certain limited circumstances, they will not dispose of any interest in the Ordinary Shares (including warrants) held by them for a period of twelve months from the date of Admission and, for the following twelve months, that they will only dispose of their holdings with the prior written consent of the Company's nominated adviser and broker from time to time (such consent not to be unreasonably withheld or delayed) and further provided that any such disposal shall be effected through the broker in such orderly manner as the broker shall reasonably require with a view to maintaining an orderly market in the issued share capital of the Company.

In addition, each of Starvest Plc, Sunvest Corporation Pty Limited and Mr Bruce Rowan have undertaken to the Company and Libertas not to dispose of any Ordinary Shares held by them for a period of twelve months from the date of Admission, except in certain limited circumstances permitted by the AIM Rules for Companies and for the following twelve months, that they will only dispose of their holdings with the prior written consent of the Company's nominated adviser and broker from time to time (such consent not to be unreasonably withheld or delayed).

Mr Conrad Windham who holds less than 10 per cent. of the issued share capital of the Company, has undertaken to the Company and Libertas not to dispose of any Ordinary Shares held by him for a period of six months from Admission, except in certain limited circumstances permitted by the AIM Rules for Companies and for the following twelve months, that he will only dispose of his holding with the prior written consent of the Company's nominated adviser and broker from time to time (such consent not to be unreasonably withheld or delayed).

In aggregate, 80.9 million Ordinary Shares representing approximately 37.77% per cent. of the Enlarged Share Capital will be subject to the lock-in and orderly market agreements referred to above. Further details of the lock-in and orderly market agreements are set out in paragraphs 12.12 to 12.14 of Part V of this document.

19. The City Code on Takeovers and Mergers, Mandatory Bids, Squeeze-out and Sell-out Rules

The City Code on Takeovers and Mergers is administered by the Panel on Takeovers and Mergers. The Company is a company to which the City Code applies and its shareholders are accordingly entitled to the protections afforded by the City Code.

The City Code and the Panel operate principally to ensure that shareholders are treated fairly and are not denied an opportunity to decide on the merits of a takeover and that shareholders of the same class are afforded equivalent treatment by an offeror. The City Code also provides an orderly framework within which takeovers are conducted. In addition, it is designed to promote, in conjunction with other regulatory regimes, the integrity of the UK's financial markets.

Under Rule 9 of the City Code, when a person or a group of persons acting in concert acquires an interest in shares in a company which is subject to the City Code, and such shares (when taken together with any other shares in which he or they have an existing interest) carry 30 per cent. or more of the voting rights of the Company, such person or group of persons is normally obliged to make a general offer in cash to all of the Company's shareholders to acquire the remaining equity share capital at the highest price paid by any member of such concert party within the preceding 12 months.

Rule 9 of the City Code also states that, if any person or group of persons acting in concert has an interest in shares carrying not less than 30 per cent., but does not hold shares carrying more than 50 per cent. of the voting rights, and such person, or any person acting in concert with him, acquires an interest in any additional shares which increase their percentage of the voting rights, such person or group of persons is, in the same way, obliged to make a general offer to all shareholders.

At the date of this document, Mr Andrew Neubauer, Starvest Plc, Sunvest Corporation Pty Limited, Mr Bruce Rowan, Mr Anthony Scutt and Mr John Watkins (who together constitute a concert party for the purposes of the City Code) hold, in aggregate 70.9 million Ordinary Shares, representing 33.1 per cent. of the Company's issued share capital and in addition, Mr Rowan holds 6,000,000 Warrants to subscribe for further Ordinary Shares. If Mr Rowan and Mr Scutt exercised their warrants and no other Warrant holder exercised their warrants, the concert party would be interested in 79.9 million Ordinary Shares, representing 36.3 per cent. of the diluted share capital. On a fully diluted basis, Mr Rowan's and Mr Scutt's Warrants, when aggregated with the current shareholdings of the concert party would represent 33.9 per cent. of the share capital.

To the extent that, following Admission, the members of such concert party are interested in between 30 per cent. and 50 per cent. of the Company's voting share capital (and for so long as they continue to be treated as acting in concert) any further increase in the aggregate number of shares in which they are interested (including through the exercise of warrants) would be subject to the provisions of Rule 9.

Further, to the extent that, following Admission, the members of such concert party between them hold more than 50 per cent. of the Company's voting share capital (and for so long as they continue to be treated as acting in concert) they will accordingly be able to increase the aggregate number of shares in which they are interested (including through the exercise of warrants) without incurring any further obligation under Rule 9 to make a general offer, although individual members of the concert party (if their individual holdings are less than 50 per cent.) will not be able to increase the percentage of shares in which they are interested through or between a Rule 9 threshold without Panel consent.

Under the 2006 Act, if an offeror were to acquire 90 per cent. of the Ordinary Shares within four months of making its offer, it could then compulsorily acquire the remaining 10 per cent. It would do so by sending a notice to outstanding Shareholders telling them that it will compulsorily acquire their shares and then, six weeks later, it would execute a transfer of the outstanding shares in its favour and pay the consideration to the Company, which would hold the consideration on trust for outstanding Shareholders. The consideration offered to the Shareholders whose shares are compulsorily acquired under the 2006 Act must, in general, be the same as the consideration that was available under the takeover offer unless the Shareholders can show that the offer value is unfair.

The 2006 Act also gives minority Shareholders a right to be bought out in certain circumstances by an offeror who had made a takeover offer. If a takeover offer related to all the Ordinary Shares and at any time before the end of the period within which the offer could be accepted the offeror held or had agreed to acquire not less than 90 per cent. of the Ordinary Shares, any holder of shares to which the offer relates who has not accepted the offer can by a written communication to the offeror require it to acquire those shares. The offeror would be required to give any Shareholder notice of his right to be bought out within one month of that right arising. The offeror may impose a time limit on the rights of minority Shareholders to be bought out, but that period cannot end less than three months after the end of the acceptance period. If a Shareholder exercises its rights, the offeror is bound to acquire those shares on the terms of the offer or on such other terms as may be agreed.

20. Further Information

Your attention is drawn to the additional information in Parts II, III, IV and V of this document and, in particular, to the risk factors set out in Part II of this document.

PART II

RISK FACTORS

AN INVESTMENT IN THE COMPANY IS HIGHLY SPECULATIVE AND INVOLVES A HIGH DEGREE OF RISK.

The Directors believe that the following risk factors should be carefully considered. If any of the circumstances identified in the risk factors, together with possible additional risks and uncertainties of which the Directors are currently unaware or which they consider not to be material in relation to the Group's business, were to materialise, the Group's business, financial condition and results of operations could be materially and adversely affected. It should be noted that this list is not exhaustive and that certain other risk factors may apply.

An investment in the Company may not be suitable for all recipients of this document in the light of their personal circumstances and the financial resources available to them. Investors are accordingly advised to consult an independent financial adviser duly authorised under FSMA and who specialises in advising upon the acquisition of shares and other securities before making a decision to invest.

The exploration for and development of natural resources is a highly speculative activity which involves a high degree of risk. The Ordinary Shares should be regarded as a highly speculative investment and an investment in the Company should only be made by those with the necessary expertise to evaluate the investment fully.

In addition to all the other relevant information set out in this document, the Directors consider that the following specific risk factors, which are not set out in any particular order of priority, should be taken into account by prospective investors in evaluating whether or not to make an investment in the Company:

1. Specific risks relating to the Group's activities

Future results, including resource recoveries and work programme plans and schedules, will be affected by changes in market conditions, commodity price levels, political or regulatory developments, timely completion of exploration programme commitments or projects, the outcome of commercial negotiations and technical or operating factors.

Limited operating history

Oracle is at an early stage of development with operating losses expected to be incurred for the foreseeable future. It currently has no projects producing positive cash flow and its ultimate success will depend on its ability to raise capital for the development of operations and generate cash flow from producing properties in the future. The Group has not earned income or profits to date and there is no assurance that it will do so in the future or that it will be successful in achieving a return on shareholders' investment. The Group's activities have to date been directed to the exploration for, and development of, new coal deposits. Significant capital investment will be required to achieve commercial production from successful exploration efforts and there is no guarantee that the Group will be able to raise the required funds to continue these activities.

Early stage of operations

The Group's operations are at an early stage of development and success will depend on the Directors' ability to manage the current projects and to take advantage of further opportunities which may arise. There can be no guarantee that the Group can or will be able to, or that it will be commercially advantageous for the Group to, develop its licences or licence areas. Further, the Group has no properties producing positive cash flow and its ultimate success will depend on the Directors' ability to implement their strategy, generate cash flow from economically viable projects and access equity markets. Whilst the Directors are optimistic about the Group's prospects, there is no certainty that

anticipated outcomes and sustainable revenue streams will be achieved. The Group will not generate any material income until mining has successfully commenced and in the meantime the Group will continue to expend its cash reserves.

General exploration and mining extraction risks

The business of exploration for, and development and exploitation of, mineral deposits is speculative and involves a high degree of risk, which even a combination of careful evaluation, experience and knowledge may not eliminate. Mineral deposits assessed by the Group may not ultimately contain economically recoverable volumes of resources and even if they do, delays in the construction and commissioning of mining projects or other technical difficulties may result in any projected target dates for production being delayed or further capital expenditure being required.

The operations of the Group may be disrupted, curtailed, delayed or cancelled by a variety of risks and hazards which are beyond the control of the Group, including unusual or unexpected geological formations, formation pressures, geotechnical and seismic factors, environmental hazards, industrial accidents, occupational and health hazards, technical failures, mechanical difficulties, equipment shortages, labour disputes, fires, explosions, power outages, rock falls, land slides, flooding and extended interruptions due to inclement or hazardous weather conditions, explosions and other acts of God. Any one of these risks and hazards could result in work stoppages, damage to, or destruction of, the Group's facilities, personal injury, damage to life or property, environmental damage or pollution, business interruption, monetary losses and possible legal liability which could have a material adverse impact on the business, operations and financial performance of the Group. Although precautions to minimise risk will be taken, even a combination of careful evaluation, experience and knowledge may not eliminate all of the hazards and risks. In particular, no assurance can be given that the Group will be able to obtain insurance coverage at reasonable rates (or at all), or that any coverage it obtains will be adequate and available to cover any claims arising. The Group may become subject to liability for pollution or other hazards against which it has not insured or cannot insure, including those in respect of past mining activities for which it was not responsible.

As is common with many exploration ventures, there is also uncertainty and therefore risk associated with the Group's operating parameters and costs which can be difficult to predict and are often affected by factors outside of the Group's control. Few properties which are explored are ultimately developed into producing assets/mines. There can be no guarantee that any estimates of quantities and grades of coal and potentially other minerals discovered by the Group will be available to extract. If reserves are developed, it can take significant expenditure and a number of years from the initial phases of drilling and identification of mineralisation until production is possible, during which time the economic feasibility of production may change. Substantial expenditures are required to establish mineral reserves through drilling and, in the case of new properties, to construct mining and processing facilities. With many natural resources operations there is uncertainty and, therefore, risk associated with operating parameters and costs resulting from the scaling up of extraction methods tested in pilot conditions.

Mineral exploration is highly speculative in nature, involves many risks and uncertainties and is frequently unsuccessful. No assurance can be given that the exploration programmes undertaken by the Group will result in any new commercial mining operations being brought into production or result in an increase in the Group's resource base. Any statement by the Company, or by Dargo, the competent person in Part III of this document, of potential resources and reserves are only estimates based on various assumptions, and subject to various risks, and they do not constitute any form of profit forecast.

Title matters

Whilst the Group has diligently investigated its title to, and rights and interests in, the licences held by SCE, and, to the best of its knowledge, such title, rights and interests are in good standing, this should not be construed as a guarantee of the same. The licences may be subject to undetected defects. If a defect does exist, it is possible that the Group may lose all or part of its interest in the licence to which the defect relates and its exploration programme and prospects may accordingly be adversely affected.

While the Directors have no reason to believe that the existence and extent of any of the Group's properties are in doubt, title to mining properties is subject to potential litigation by third parties claiming an interest in them. The failure to comply with all applicable laws and regulations, including failure to pay taxes, meet minimum expenditure requirements, if any, or carry out and report assessment work, may invalidate title to portions of the properties where the mineral rights are not held by the Group.

Development projects

Development projects have no operating history upon which to base estimates of future cash operating costs. For development projects, estimates of proven and probable reserves and cash operating costs are, to a large extent, based upon the interpretation of geological data obtained from drill holes and other sampling techniques and feasibility studies which derive estimates of cash operating costs based upon anticipated recoveries to be mined and processed, the configuration of the mineral body, expected recovery rates, comparable facility and equipment operating costs, anticipated climatic conditions and other factors. As a result, it is possible that actual cash operating costs and economic returns may differ from those currently estimated. Additionally, the resources underlying such projects require further evaluation and capital expenditure in order to bring them into production. Future work on the development of these projects (and any additional projects pursued by the Group in due course), the levels of production and financial returns arising therefrom may be delayed or adversely affected by factors outside the control of the Group.

In particular, the potential mine project outlined in this document is at an early stage of development and evaluation and carries a significant element of uncertainty and therefore risk as regards both operating parameters and costs which can be difficult to predict and may be affected by factors outside the Company's control. Any revenues which may be generated from the mine project described in this document and any other project in which the Company invests are likely to be affected by numerous factors which are beyond the Company's control. These factors include global and regional economic and political events and international economic trends, as well as a range of other market forces.

Operational targets and delays

The Group's operational targets will be subject to the completion of planned operational goals on time and according to budget, and are dependent on the effective support of the Group's personnel, systems, procedures and controls (see below for further details). Any failure of these may result in delays in the achievement of operational targets with a consequent material adverse impact on the business, operations and financial performance of the Group.

The location of all of the Group's current exploration activities dictates that climatic conditions have an impact on operations and, in particular, severe weather could disrupt the delivery of supplies, equipment and fuel. It is, therefore, possible that the Group's activity levels might fluctuate or be delayed or hindered. Unscheduled interruptions in the Group's operations due to mechanical or other failures or industrial relations related issues or problems or issues with the supply of goods or services could have a serious impact on the financial performance of those operations.

Even if the Group remains on schedule with its operational targets, it is highly unlikely that any commercially viable mining and production will commence for some years. The Group will not generate any material income until mining has successfully commenced. In the meantime the Group will continue to expend its cash reserves.

Reserve and resource estimates

The Group's reported mineral reserves and resources, as presented in this document, have been derived from calculations and estimates by Dargo. No assurance can be given that the mineral reserves and resources are present as estimated, will be recovered at the rates estimated or that they can be brought into profitable production. Mineral reserve and resource estimates are based on limited sampling, and, consequently, are uncertain because the samples may not be representative and the consistency and reliability of coal seams/ore grades cannot be guaranteed. Mineral reserve and resource estimates may require revisions and/or changes (either up or down) based on actual production experience and in light of the prevailing market price of coal. A decline in the market price for natural resources that the Group

may discover could render reserves uneconomic to recover and may ultimately result in a reclassification of reserves as resources. The current reserves are undeveloped and will require significant capital expenditure in order to bring them into production.

Furthermore, the JORC Code provides a Competent Person with some degree of flexibility in making his assessment of Mineral reserves and resources. As such, two different independent Competent Persons may not necessarily arrive at the same conclusions. In the case of Oracle, borehole spacings in Block VI outside the proposed mine area are such that the currently stated Measured Resource could be considered instead to be an Indicated Resource, albeit this would have no impact on the economic viability of the Company's proposed mine project.

Reliance on underlying assumptions

Dargo has evaluated and provided a report on, *inter alia*, the geological, technical and environmental aspects of the Group's lignite resource and its proposed integrated mine and power plant project, as set out in Part III of this document. For the purposes of preparing its report and the illustrative mine and power plant design contained therein, certain assumptions were made, of necessity, with respect to general business and economic conditions and several other material contingencies and other matters the outcome of which cannot be predicted by the Group, Dargo or any other person with any certainty of accuracy. These assumptions are inherently subject to significant uncertainties and the actual results, for example, the final mine and power plant design adopted and rates of production, may differ, perhaps materially, from those estimated. Neither the Group, Dargo nor any other person assumes any responsibility for the accuracy of any projections. The Group makes no representation, nor is one intended, nor should any be inferred, with respect to the likely existence of any particular future set of facts or circumstances. If actual results are less favourable than those shown, or if the assumptions used prove to be incorrect, the Group's ability to generate future profits may be adversely affected.

Ability to exploit successful discoveries

It is possible that the Group may not be able to exploit commercially viable discoveries in which it acquires an interest. Exploitation may require external approvals or consents from relevant authorities and the granting of these approvals and consents is beyond the Group's control. For instance, power purchase agreements or standard offer contracts in certain jurisdictions are subject to approval by local, state, provincial or national utilities commissions or other regulatory authorities. The granting of such approvals and consents may be withheld for lengthy periods, not given at all, or granted subject to the satisfaction of certain conditions which the Group may not be able to meet. As a result of such delays, the Group may incur additional costs, losses or loss of revenue or part or all of its equity in a licence. Additionally, should the regulatory regime in an applicable jurisdiction be modified in a manner which adversely affects natural resources facilities or projects, including in taxes and permit fees, the returns to the Group may be adversely affected.

Inherent mining risks

Mining, and in particular underground coal mining, is carried out in an environment where not all events are predictable. Whilst an effective management team can both identify the known risks and take measures to manage and mitigate these risks, there is still the possibility for unexpected and unpredictable events to occur. It is therefore not possible to remove all risks or to state with any degree of certainty that an event that may have a material impact on the operation of a mine will not occur.

Volatility in the price of coal, electricity prices and the general economic climate

The general economic climate and market price of, and demand for, coal is volatile and is affected by a variety of factors which are beyond the Group's control. These could include international supply and demand, the level of consumer product demand, weather conditions, the price and availability of alternative fuels, growth in gross domestic product, supply and demand of capital, employment trends, international economic trends, currency exchange rate fluctuations, the level of interest rates and the rate of inflation, the cost of freight, global or regional political events and international events, as well as a range of other market forces. The aggregate effect of these factors is impossible to predict. Sustained downward movements in coal prices could render less economic, or wholly uneconomic, some or all of the exploration and coal production related activities to be undertaken by the Group.

Similarly, the market price of electricity is also volatile and affected by numerous factors which are beyond the Company's control. These include supply and demand, the level of consumer demand, international economic trends, the availability of alternative sources of supply (including electricity generated by nuclear power plants), the level of interest rates, the rate of inflation, global or regional political events, the availability of subsidies and incentives, as well as a range of other market forces.

Sustained downward movements in coal and/or electricity market prices could render less economic, or wholly uneconomic, some or all of the exploration and proposed coal extraction and electricity generation related activities to be undertaken by the Group.

In particular, lignite is the lowest global rank or classification of coal and is used almost exclusively as a fuel for steam-electric power generation. Accordingly, the Directors believe that the local sales price achievable in Pakistan for such coal will be heavily dependent upon the price for electricity set by the Pakistani Government.

Off-take Agreements

The Company will seek to enter into off-take agreements with electrical power supply companies and industrial cement producers. There is no guarantee that the Company will be able to conclude such off-take agreements or secure pricing structures under such off-take agreements that will generate an economic return from its coal production.

Availability of drilling and mining equipment

The availability of drilling rigs and other equipment and services is affected by the level and location of drilling activity around the world. An increase in drilling operations outside the current focus area of the Group or in other areas may reduce the availability of equipment and services to the Group. Similarly, the Group may have difficulty sourcing the mining equipment it requires in the timeframe envisaged by the Group's plans due to high global demand for such equipment. The reduced availability of equipment and services may delay the Group's ability to exploit reserves and adversely affect the Group's operations and profitability.

Government regulations and licences

The Group's existing licences and licence areas are in a jurisdiction outside of the United Kingdom and accordingly there will be a number of risks which the Group will be unable to control. Whilst the Group will make every effort to ensure it has robust commercial agreements covering its activities, there is a risk that the Group's activities will be adversely affected by economic and political factors such as the imposition of additional taxes and charges, cancellation or suspension of licences, expropriation, war, terrorism, insurrection and changes to the laws and regulations governing mineral exploration and development, including labour standards and occupational health, site safety, toxic substances and other matters. In addition, there may exist uncertainties surrounding lack of judicial independence, inconsistencies among laws, decrees and regulations issued by the Government of Pakistan and its ministries, inconsistencies among regional and local laws and regulations and limited judicial guidance on interpreting legislation.

Governmental approvals, licences and permits are, as a practical matter, subject to the discretion of the applicable governments or governmental offices. The Group must comply with existing standards, laws and regulations that may entail greater or lesser costs and delays, depending on the nature of the activity to be permitted and the permitting authority.

The Group's intended further exploration and mining activities will be dependent upon the grant and maintenance of appropriate licences, concessions, leases, permits and regulatory consents which could subsequently be withdrawn or made subject to limitations. There can be no guarantee as to the terms of any such licences or assurance that current licences or future licences will be renewed or, if so, on what terms when they come up for renewal. Although the Directors believe that the Group's exploration activities are currently carried out in accordance with all applicable rules and regulations, no assurance can be given that new rules, laws and regulations will not be enacted or that existing or future rules and regulations will not be applied in a manner which could serve to limit or curtail exploration, production or development of the Group's business or have an otherwise negative impact on its activities. Amendments to existing rules, laws and regulations governing its operations and activities of

exploration and extraction, or increases in or more stringent enforcement, implementation or interpretation thereof, could have a material adverse impact on the Group's business, results of operations and financial condition and its industry in general in terms of additional compliance costs.

Transportation delays

Rail and road transportation are expected to be the Group's principal means of transporting raw materials products to its customers. As a result, increases in transportation costs may adversely affect the Group's ability to compete successfully. If there are increased transport costs, the Group's results of operations could be materially adversely affected. There can be no guarantee that suitable capacity of transport networks for the transportation of coal will be available on commercially acceptable terms.

Water supply infrastructure at Thar Coalfields

A steady supply of water is necessary for all power plants. Although studies have shown that there is water in underground aquifers at Thar, its amount has not been established and it may be insufficient. As set out in section 6.6 of Dargo's report in Part III of this document, the quality of the water for the proposed integrated mine and power plant is not fully defined. More detailed investigations are required to establish the availability of sufficient quantities of saline water and the properties of this water.

Reliance on and retention of key personnel

The future performance of the Group will be to a significant extent dependent on the expertise, continued services and contributions, experience, abilities, business relationships/personal connections and efforts of its Directors. Although the Group has entered into, or will subject to Admission enter into, service agreements and letters of appointment in relation to securing the services of its Directors, there is no guarantee that such agreements and letters of appointment will be honoured and will not be terminated, and the retention of their services cannot be guaranteed. The loss of the services of any of the Directors may have a material adverse effect on the business, operations and/or prospects of the Group.

The Group's future success and growth will also depend upon its ability to attract, recruit, motivate and retain further suitably skilled, qualified and industry experienced personnel to form a high calibre management team. There can be no guarantee that the Group will be able to attract and retain such employees and failure to do so could have a material adverse effect on the financial condition, results, operations and/or prospects of the Group. Given the current lack of appointed SCE management and definitive mine plans and supporting data, the operational plans ultimately put in place by the Group may vary from the currently envisaged plans.

Labour

Certain of the Group's operations are carried out under potentially hazardous conditions. Whilst the Group intends to operate in accordance with relevant health and safety regulations and requirements, the Group remains susceptible to the possibility that liabilities might arise as a result of accidents or other workforce-related misfortunes, some of which may be beyond the Group's control.

Further, the Group may struggle to recruit and retain miners, engineers and other important members of the workforce required to run a full mining programme. Shortages of labour, or of skilled workers, may cause delays or other stoppages during exploration and mining.

Risks associated with the need to maintain an effective system of internal controls

The Group faces risks frequently encountered by developing companies such as under-capitalisation, cash shortages and limited resources. In particular, its future growth and prospects will depend on its ability to manage growth and to continue to maintain, expand and improve operational, financial and management information systems on a timely basis, whilst at the same time maintaining effective cost controls. Any damage to, failure of or inability to maintain, expand and upgrade effective operational, financial and management information systems and internal controls in line with the Group's growth could have a material adverse effect on the Group's business, financial condition and results of operations.

Environmental, health and safety and other regulatory standards

The projects in which the Group invests and its exploration and potential extraction activities are subject to various laws and regulations relating to the protection of the environment (including regular environmental impact assessments and the obtaining of appropriate permits or approvals by relevant environmental authorities) and are also required to comply with applicable health and safety and other regulatory standards. Environmental legislation in particular can, in certain jurisdictions, comprise numerous regulations which might conflict with one another and which cannot be consistently interpreted. Such regulations typically cover a wide variety of matters including, without limitation, prevention of waste, pollution and protection of the environment, labour regulations and worker safety. The Group may also be subject under such regulations to clean-up costs and liability for toxic or hazardous substances which may exist on or under any of its properties or which may be produced as a result of its operations. As a result, although the Group intends to operate in accordance with the highest standards of environmental practice and comply in all material respects, full compliance with applicable environmental laws and regulations may not always be ensured.

Any failure to comply with relevant environmental, health and safety and other regulatory standards may subject the Group to extensive liability, fines and/or penalties and have an adverse effect on the business and operations, financial results or financial position of the Group. Furthermore, the future introduction or enactment of new laws, guidelines and regulations could serve to limit or curtail the growth and development of the Group's business or have an otherwise negative impact on its operations. Any changes to, and increases in, current regulation or legal requirements may have a material adverse effect upon the Group in terms of additional compliance costs.

Retention of key business relationships

The Group will rely significantly on strategic relationships with other entities, on good relationships with regulatory and governmental departments and upon third parties to provide essential contracting services, such as construction, and the operation and management of the proposed mine and power plant. There can be no assurance that its existing relationships will continue to be maintained or that new ones will be successfully formed, and the Group could be adversely affected by changes to such relationships or difficulties in forming new ones. Any circumstance which causes the early termination or non-renewal of one or more of these key business alliances or contracts could adversely impact the Group, its business, operating results and prospects. Various aspects of the Group's future performance and profitability are dependent on the outcome of future negotiations with third parties.

Joint ventures

The Group holds an interest and expects to hold in the future interests in joint ventures. If it is unable to meet its share of the costs incurred or cost commitments under option or joint venture agreements to which it is a party it may have its interest in the properties subject to such agreements reduced as a result.

Joint ventures may involve special risks associated with the possibility that the joint venture partners may (i) have economic or business interests or targets that are inconsistent with those of the Group; (ii) take action contrary to the Group's policies or objectives with respect to their investments, for instance by veto of proposals in respect of joint venture operations; (iii) be unable or unwilling to fulfil their obligations under the joint venture or other agreements such that the Group may therefore suffer additional costs or other losses; or (iv) experience financial or other difficulties. Any of the foregoing may have a material adverse effect on the results of operations or the financial condition of the Group.

In addition, the termination of joint venture agreements, if not replaced on similar terms, could have a material adverse effect on the results of operations or the financial condition of the Group. Where joint ventures are not formally entered into and documented there is a further risk that they may not be finally entered into in the way originally envisaged.

It is also possible that the interests of the Group and those of its joint venture partners are not aligned resulting in project delays or additional costs and losses. The Group may have minority interests in the companies, partnerships and ventures in which it invests and may be unable to exercise control over the operations of such companies.

Project development risks

There can be no assurance that the Group will be able to manage effectively the expansion of its operations or that the Group's current personnel, systems, procedures and controls will be adequate to support the Group's operations. This includes, *inter alia*, the Group managing the acquisition of required land tenure, infrastructure development and other related issues affecting local and indigenous populations, their cultures and religions. Any failure of the board to manage effectively the Group's growth and development could have a material adverse effect on the Group's business, financial condition and results of operations. There is no certainty that all or, indeed, any of the elements of the Group's current strategy will develop as anticipated and that the Group will be profitable.

Outstanding warrants

As detailed in paragraph 6 of Part V to this document, the Company has issued a significant number of warrants to amongst others, certain investors, the existing and former directors and certain of its existing and former professional advisers. It may in the future issue further warrants and/or options to subscribe for new Ordinary Shares to certain advisers, employees, Directors, senior management and consultants of the Group. The exercise of such warrants and options would result in a potentially sizeable dilution of the shareholdings of other investors.

Influence of the Concert Party as substantial Shareholders

On Admission, the Concert Party will collectively own approximately 33.6 per cent. of the Enlarged Share Capital. Accordingly, these shareholders may be in a position to exert significant influence over the matters relating to the Group, including the appointment of the Group's board of directors and the approval of significant change-of-control transactions. In addition, this control may have the effect of making certain transactions more difficult without the support of the Concert Party and may have the effect of delaying or preventing an acquisition or other change in control of the Group.

Payment obligations

Under the exploration licences and certain other contractual agreements to which the Group is, or may in the future become, a party, the Group is, or may become, subject to payment and other obligations. If such obligations are not complied with when due, in addition to any other remedies which may be available to other parties, this could result in dilution or forfeiture of interests held by the Group. The Group may not have, or be able to obtain, funding for all such obligations as they arise.

Corporate and regulatory formalities

The conduct of mining and power plant operations in Pakistan and the steps involved in the Group acquiring its current exploration licences will involve or have involved the need to comply with numerous procedures and formalities. It may not in all cases be possible to comply with or obtain waivers of all such formalities.

Public acceptance of coal

As a consequence of certain political, technological and environmental factors that affect the coal industry, it is subject to public opinion risks which could have an adverse impact on the demand for coal power and increase the regulation of the coal power industry. In particular, transnational governmental agreements regarding the environment or reduced acceptance of coal as a clean source of energy may lead to reduced demand and adversely affect the performance of the Group.

The Group's objectives may not be fulfilled

The ability of the Directors to implement the Group's strategy could be adversely affected by changes in the economy and/or industry in which it operates. Although the Group has a clearly defined strategy and the Directors are optimistic about its prospects, there can be no guarantee that its objectives or any of them will be achieved on a timely basis or at all. In particular, further projects/prospecting opportunities may not be available or of the quality or in the number required to satisfy the Group's requirements and therefore anticipated development or growth of the Group may not be achieved. The Group's ability to attract new growth opportunities is also dependent on the maintenance of its reputation.

2. General business risks relating to the Group

General economic climate and political risk

The proposed operations of the Group will be in a foreign jurisdiction where there may be a number of associated risks over which it will have no control and which may affect its operations, business and profitability. These may include economic, social or political instability or change, supply and demand of capital, growth in gross domestic product, employment trends and industrial disruption, international economic trends, terrorism, hyperinflation, currency non-convertibility or instability/fluctuations, changes of laws affecting foreign ownership, government participation and monetary policies, taxation, working conditions, rates of exchange, exchange control, the level of interest rates and the rate of inflation, exploration and other licensing approvals, as well as government control over the domestic pricing of electricity supply. All such factors, as well as a range of other market forces, have a significant influence on demand, business costs, stock market prices and the outlook for projects and companies and the actual and potential returns to investors.

Future funding requirements

The Group expects to raise sufficient funds in the Placing in order to satisfy the Group's ongoing working capital needs and finance the completion of a Bankable Feasibility Study in respect of its proposed mine project for Block VI, Thar Coalfield. Very substantial additional funds will be necessary for the Group to fund the development of a coal mine to fulfil its obligations under any applicable agreements and to finance its future growth. It will therefore be necessary for the Group to raise further funds by way of the issue of further Ordinary Shares and also by way of debt financing, or through other means, to finance its anticipated future operations. Coal and electricity prices, environmental rehabilitation or restitution, revenues, taxes, transportation costs, capital expenditures and operating expenses and geological results are all factors which will have an impact on the amount of additional capital required. Any additional equity financing may be dilutive to existing shareholders and investors if they are unable or chose not to subscribe and the issue of additional Ordinary Shares by the Company, or the possibility of such an issue, may cause the market price of the Ordinary Shares to decline.

Furthermore, debt financing, if available, may involve restrictions on the Group's freedom to operate its business, such as conditions that:

- limit the Group's ability to pay dividends or require it to seek consent for the payment of dividends;
- increase the Group's vulnerability to general adverse economic and industry conditions;
- require the Group to dedicate a portion of cash flow arising from operations to payments of its debt, thereby reducing the availability of its cash flow to fund capital expenditures, working capital and other general corporate purposes; and
- limit the Group's flexibility in planning for, or reacting to, changes in its business and its industries.

There can be no guarantee or assurance that such additional equity and debt funding will be forthcoming when required, or as to the terms and price on which such funds would be available if at all. If the Group is unable to obtain additional financing as needed, or on terms which are acceptable, it may not be able to fulfil its strategy, which could have a material adverse effect on the Group's business, financial position and prospects. It may also be required to reduce the scope of its operations or anticipated growth, forfeit its interest in some or all of its properties and licences, incur financial penalties or reduce or terminate its operations.

The successful exploration and commercial exploitation of natural resources on any project will require very significant capital investment. The only sources of financing currently available to the Group are through the issue of additional equity capital or through bringing in partners to fund exploration and development costs. The Group's ability to raise further funds will depend, *inter alia*, on the success of its strategy and operations.

Exchange rate fluctuations

Currency fluctuations may affect the Group's operating cash flow since certain of its costs and revenues are likely to be denominated in a number of different currencies other than Pounds Sterling such as US Dollars and Pakistani Rupees and any potential income may become subject to exchange control or similar restrictions. Increased restraints on the ability of the Group to repatriate funds may limit its ability to distribute future profits or pay intermediaries for equipment and supplies. Fluctuations in exchange rates between currencies in which the Group operates may cause fluctuations in its financial results which are not necessarily related to its underlying operations. The Group does not currently have a foreign currency hedging policy in place. If and when appropriate, the adoption of such a policy will be considered by the Board.

Prospective investments

The Group may expend significant costs on, *inter alia*, conducting due diligence into potential investment opportunities in further businesses or prospects/projects that may not be successfully completed or result in any acquisition being made.

Growth strategy execution risks

In order to expand its operations, the Group may seek to make acquisitions of selected mineral companies, businesses or assets. The Group's success in making any acquisitions will depend on a number of factors, including, but not limited to:

- negotiating acceptable terms with the seller(s) of the company, business or asset(s) to be acquired;
- obtaining approval from regulatory authorities in the jurisdiction of the company, business or asset(s) to be acquired, as applicable;
- assimilating/integrating the operations of an acquired company, business or asset(s) in a timely and efficient manner;
- maintaining the Group's financial and strategic focus while integrating the acquired company, business or asset(s);
- implementing uniform standards, controls, procedures and policies in relation to the acquired company, business or asset(s); and
- to the extent that the Group makes an acquisition outside of markets in which it has previously operated, conducting and managing operations in a new operating environment.

Any problems experienced by the Group in connection with an acquisition as a result of one or more of these factors could have a material adverse effect on its business, operating results and financial condition.

The competitive environment

The coal exploration and mining business and the natural resource industry in general is competitive in all of its phases. A number of other mining companies have sought and may seek to establish themselves in Pakistan and have already, or may be allowed to, tender for exploration and mining licences and other services, supplies or contracts, thereby providing competition to the Group. The Group will compete with numerous other local and international companies and individuals, including larger competitors with access to greater financial, technical and other resources than the Group, which may give them a competitive advantage in the exploration for and commercial exploitation of attractive coal properties. In addition, actual or potential competitors may be strengthened through the acquisition of additional assets and interests and competition could adversely affect the Group's ability to acquire suitable additional properties for exploration in the future. The Group's success will depend on its ability to select and acquire exploration and development rights on properties and there can be no assurance that the Group will continue to be able to compete successfully with its rivals.

Market perception

Market perception of junior mining and exploration companies, as well as all mining companies, in general, may change which could impact on the value of investors' holdings and the ability of the Group to raise further funds through the issue of further ordinary shares in the Company or otherwise.

Possible volatility of the price of the Enlarged Share Capital

Following Admission the market price of the Enlarged Share Capital could be subject to significant fluctuations due to various factors and events, including any regulatory or economic changes affecting the Group's operations, variations in the Group's operating results, the price of coal, developments in the Group's business or its competitors, or to changes in market sentiment towards the Group. The Group's operating results and prospects from time to time may be below the expectations of market analysts and investors. In addition, stock markets from time to time may be below the expectations of market analysts and investors. In addition, stock markets from time to time suffer significant price and volume fluctuations that affect the market prices for securities and which may be unrelated to the Group's operating performance. Any of these events could result in a decline in the market price of the Enlarged Share Capital.

Insurance coverage and uninsured risks

The Group plans to insure its operations in accordance with industry practice and plans to insure the risks it considers appropriate for the Group's needs and circumstances, however, the Group's insurance will not cover all potential risks associated with the Group's business. In addition, the Group may elect not to have insurance for certain risks, due to the high premium costs associated with insuring those risks or for various other reasons, including an assessment that the risks are remote. Furthermore, as a participant in exploration and potentially extraction/mining activities, the Group may not be able to obtain insurance coverage at all at acceptable premiums and some forms of insurance protection used in western countries may be unavailable in Pakistan. In the event that insurance coverage is not available or the Group's insurance is insufficient to fully cover any losses, claims and/or liabilities incurred, the Group's business and operations, financial results or financial position may be disrupted and adversely affected. In addition, the payment by the Group's insurers of any insurance claims may result in increases in the premiums payable by the Group for its insurance cover and adversely affect the Group's financial performance. In the future, some or all of the Group's insurance coverage may become unavailable or prohibitively expensive.

Gearing and interest rates

Prospective investors should be aware that the Group may choose to raise further funds in the form of debt. The use of borrowing creates the risk that the borrower may be unable to service the interest payments or comply with the other requirements of the lender. The borrower will be potentially exposed to adverse interest rate movements that may affect the cost of borrowings, which in turn would impact on its earnings, and increase the financial risk inherent in the business.

Taxation

This document has been prepared in accordance with current UK tax legislation, practice and concession and interpretation thereof. Any change in the Group's tax status or the tax applicable to a holding of Ordinary Shares or in taxation legislation or its interpretation, could affect the value of the investments held by the Group, affect the Group's ability to provide returns to Shareholders and/or alter the post tax returns to Shareholders. It should be noted that statements in this document concerning the taxation of the Group and its investors are based upon current tax law and practice which is subject to legislative change. The taxation of an investment in the Company depends on the individual circumstances of investors.

Litigation

While the Group currently has no material outstanding litigation, there can be no guarantee that the current or future actions of the Group will not result in litigation since there have been a number of cases where the rights and privileges of natural resource companies have been the subject of litigation and the mining industry, as with all industries, may be subject to legal claims, both with and without merit, from time to time. The Directors cannot preclude that such litigation may be brought against the Group in the future. Defence and settlement costs can be substantial, even with respect to claims that have no merit. Due to the inherent uncertainty of the litigation process, there can be no assurance that the resolution of any particular legal proceeding will not have a material adverse effect on the Group's financial position, results or operations. The Group's business may be materially adversely affected if the Group and/or its employees or agents are found not to have met the appropriate standard of care or not

exercised their discretion or authority in a prudent or appropriate manner in accordance with accepted standards. Although the Company will maintain professional indemnity insurance in respect of such risks, there is no guarantee that any insurance in place will cover all, or any part, of any liability incurred by the Company in any such circumstances.

3. Risks relating to Pakistan

Political risks

Existing political conditions are subject to the introduction of new legislation, amendments to existing legislation, or the interpretation of those laws by courts of competent jurisdiction, the current Pakistani Government or its successors which could impact adversely on the assets, operations and ultimately the financial performance of the Company.

A decline in political stability, changes in political attitudes and changes to Government regulations relating to foreign investment and the mining business in the territories in which the Company operates are beyond the control of the Company and may adversely affect its business.

Operations which the Company may undertake could be affected to varying degrees by Government regulations imposing restrictions on various areas, including production, price controls, export controls, income taxes, expropriation of property, environmental legislation and mine safety.

Hostilities, terrorist attacks, civil unrest and other acts of violence could adversely affect the operations of the Company in Pakistan and investor demand for the Company's shares. Despite the various measures taken by the Pakistani Government, under former President Pervez Musharraf, to ban destabilising organisations in the country, the Company's operations could be affected by the perception that investments in Pakistan involve a high degree of risk.

A slowdown in economic growth in Pakistan

The Group operates principally in the domestic Pakistani market and its performance and growth are therefore necessarily dependent on the overall health of the Pakistani economy. The Pakistani economy has shown sustained growth over the last several years with real GDP averaging 5.2 per cent. for the last eight fiscal years, spurred by expansionary monetary and fiscal policies, including increased Government spending and lowered tax rates, and increased amounts of international aid and repatriated funds resulting from geopolitical factors. However, the Pakistani economy could be negatively affected by a number of factors, including political instability, a decrease in domestic cotton production or a significant and sustained increase in the price of crude oil. Inadequate infrastructure and power shortages could also restrict the growth of the Pakistani economy. Any downturn in the Pakistani economy may adversely affect demand for electricity and therefore the financial viability of the Group's proposed integrated mine and power plant project and its ability to execute its growth strategy.

Political instability and significant changes in Government policy

The Company's subsidiary, Sindh Carbon Energy, is incorporated in Pakistan and has its centre of operations in Pakistan and the Group will derive almost all of its envisaged future revenues from its operations in Pakistan. Accordingly the Group is subject to political, economic and social factors affecting Pakistan, regional diplomatic developments affecting Pakistan and changes in Pakistani laws or regulations. The Government has exercised, and continues to exercise, substantial influence over many aspects of the private sector. Government actions or changes in political conditions (and the impact thereof on the domestic economy) in the future could have a significant effect on economic conditions in Pakistan, which could adversely affect the Group's business and its financial results.

Pakistan has from time to time experienced political instability. In 1999, General Pervez Musharraf took control of the Government and served as the country's President from 2001 to 2008, stepping down from office on 18 August 2008 in the midst of threatened impeachment proceedings by his political opponents. The army has been an important part of the Government and continues to play a stabilising role in the country. However, there have been and continue to be many instances of violent conflict within the country. Former Prime Minister Ms Benazir Bhutto was assassinated on 27 December 2007 and former President Mr Pervez Musharraf was himself the target of several assassination attempts. Any political instability could adversely affect the performance of the Pakistani economy and could have a

material adverse effect on the market for the Company's shares and on the Group's results of operations. Further, ethnic unrest and troubled relations with India have threatened the political stability of Pakistan and its bordering countries and its financial markets in the past. A deterioration in international relations, with India, Afghanistan or other countries, may result in investor concern regarding regional stability which could adversely affect the price of the Company's shares.

The role of the Government and provincial Governments in the Pakistani economy and their impact on producers, consumers, service providers and regulators has remained significant over the years. Since 2000, the Government has made substantial macroeconomic reforms and pursued policies of economic liberalisation, including significantly relaxing restrictions on the private sector. However, there can be no assurance that these liberalisation policies will continue in the future. The rate of economic liberalisation could change, and laws and policies affecting mining regulation and the coal and electricity industries could also be subject to amendment. Any significant change in liberalisation and deregulation policies could adversely affect business and economic conditions in Pakistan generally and the Group's business in particular, which could have a material adverse effect on the results of its operations and the market price of the Company's shares.

Hostilities, terrorist attacks, civil unrest and other acts of violence

Terrorist attacks and other acts of violence or war may adversely affect Pakistani equity markets and economic growth. These acts may also result in a loss of business confidence, make travel and other services more difficult and have other consequences that could have an adverse affect on the Group, its results of operations and financial condition. Such an effect could result from acts of violence within Pakistan as well as within the region generally, in particular areas in Afghanistan and Indian Kashmir near the Pakistani borders. Localised terrorist attacks in which militants destroy railway links, gas pipelines and power pylons and launch attacks on Government buildings and army bases in Khyber Pakhtunkhwa (formerly North West Frontier Province) Province and the southwest province of Balochistan are common. Such attacks are typically the actions of tribal militant groups. Any conflict or violent attacks could have a direct material adverse effect on any operation of the Group's business in the affected areas, as well as on the general health of the Pakistani economy as a whole. The former Government under President Musharraf contributed approximately 90,000 troops to the American-led operations in Afghanistan and such support of the United States could increase the likelihood of further violent attacks in and against Pakistan.

In addition to the direct negative impact of violent activity on the Pakistani economy, terrorist incidents and general terrorist activities could create an increased perception that investments in Pakistani companies involve a high degree of risk and could therefore have an adverse impact on the Group's business and the market price of the Company's shares. Partly as a result of continuing conflict in Afghanistan and insurgencies in Central Asia, Pakistan has seen an increased movement of certain terrorist groups. Pakistan is also seen by some countries as the base for certain indigenous terrorist organisations. While the Government has banned such organisations, increased international awareness of terrorist activity in Pakistan may increase the perception of risk associated with Company's with business interests and activities in Pakistan.

Natural calamities could have a negative impact on the Pakistani economy

Pakistan has experienced natural calamities such as earthquakes, floods, landslides, drought and severe heat waves in recent years, including the earthquake that struck the Pakistan-controlled Kashmir region in October 2005 and resulted in the displacement of approximately three million people. Since its economy still has a sizeable agrarian component, Pakistan's economic growth and exports are also sensitive to rainfall levels and the volume of cotton and certain other cash crops. The extent and severity of these natural disasters determines their impact on the Pakistani economy. Prolonged spells of abnormal rainfall, prolonged droughts and other natural calamities could have an adverse impact on the Pakistani economy which could adversely affect the Group's business and the market price of the Company's shares. In 2010, Pakistan was affected by severe flooding in the Indus River Valley. This had no direct effect on the Company operations, but did have a negative impact on the growth of the national economy.

Investors may not be able to enforce a judgment of a foreign court against the Company

The Company's principal subsidiary SCE is incorporated in Pakistan and substantially all of its assets are located in Pakistan. As a result, it may be difficult for investors to effect service of process upon the Company or its officers who are based outside Pakistan or to enforce judgments obtained in courts outside Pakistan. The Company has been advised by its Pakistan legal advisors, Hafeez Pirzada Law Associates, that statutory recognition is given to foreign judgments in Pakistan subject to Section 13 of the (Pakistan) Code of Civil Procedure, 1908. This provides that a foreign judgment shall be conclusive as to any matter thereby directly adjudicated upon between the same parties or between parties under whom they or any of them claim litigating under the same title except (a) where it has not been pronounced by a court of competent jurisdiction, (b) where it has not been given on the merits of the case, (c) where it appears on the face of the proceedings to be founded on an incorrect view of international law or a refusal to recognize the law of Pakistan in cases where such law is applicable, (d) where the proceedings in which the judgment was obtained were opposed to natural justice, (e) where it has been obtained by fraud and (f) where it sustains a claim founded on a breach of any law in force in Pakistan. Section 44A of the Code of Civil Procedure, 1908 provides that where a certified copy of a decree of any of the superior courts of the United Kingdom or any reciprocating territory has been filed in a District Court, the decree may be executed in Pakistan as if it had been passed by the District Court. The United States has not been declared to be a reciprocating territory for the purposes of Section 44A of the Code of Civil Procedure, 1908. Accordingly, a judgment of a court in the United States may be enforced only by a suit on the original cause of action or upon the judgment but not by direct proceedings in execution. The High Court in England is, however, a court in a reciprocating territory for the purposes of Section 44A and accordingly a money judgment of that court would, subject to the exceptions contained in Section 13, be enforceable by proceedings in execution as if the judgment were the judgment of a District Court in Pakistan.

It is unlikely that a Pakistani court would award damages on the same basis as a foreign court if it viewed the amount of such damages as excessive or inconsistent with Pakistani practice. A party seeking to enforce a foreign judgment in Pakistan may be required to obtain approval from the Government and/or the State Bank of Pakistan ("SBP") under the Foreign Exchange Regulation Act, 1947 of Pakistan to execute such a judgment or to repatriate any amount recovered if such amount recovered was not otherwise repatriable outside Pakistan under any general or special permission of the SBP.

Disclosure and regulatory standards in Pakistan may be less stringent than in other jurisdictions

Disclosure and regulatory standards in Pakistan are in many respects less stringent than existing standards in the United States and the United Kingdom. The Securities and Exchange Commission Pakistan (SECP) is responsible for ensuring and improving disclosure and other regulatory standards for Pakistani companies and the SECP and the stock exchanges are responsible for ensuring and improving disclosure and other regulatory standards for the Pakistani securities markets. The SECP has issued regulations and guidelines on disclosure requirements, insider trading and other matters. There is, however, substantially less publicly available information about Pakistani public companies than is regularly made available by public companies in certain other countries. Furthermore, compared to certain other countries, there is a lower level of monitoring and regulation of the markets and the activities of investors in such markets and enforcement of existing regulations has been limited.

Any downgrading of Pakistan's prevailing debt rating by an international rating agency could have a negative impact on the Group

Any adverse revision to Pakistan's prevailing credit rating for domestic and international debt by international rating agencies may adversely impact the Group's ability to raise additional project financing and the interest rates and other commercial terms at which such additional financing may be available. This could have an adverse effect on the Group's financial performance and its ability to obtain financing to fund its growth on favourable terms or at all.

Financial instability in other countries, particularly emerging market countries, could disrupt the Group's business and affect the price of the Company's shares

Although economic conditions are different in each country, investors' reactions to developments in one country may have an adverse effect on the securities of companies in other countries, including Pakistan. A loss of investor confidence in the financial systems of other emerging markets may cause increased volatility in Pakistani financial markets and the Pakistani economy in general as investors move their money to more stable, developed markets. Any worldwide financial instability, including instability related to rising crude oil prices, could also have a negative impact on the Pakistani economy, including the movement of exchange rates and interest rates in Pakistan. Any financial disruption could have an adverse effect on the Group's business, future financial performance, shareholders' equity and the price of the Company's shares.

The Pakistani economy has a strong dependence on agriculture

Although the service sector has grown significantly in recent years, Pakistan's economy retains a significant dependence on agriculture products, including cotton and cotton products. The heavy dependence of the Pakistan economy on agriculture renders it vulnerable to adverse weather conditions and other natural factors which affect agricultural yield, as well as to decreases in international demand for, and prices of, agricultural export products. Because of its importance to the Pakistani economy, the Company is indirectly exposed to risks relating to agricultural production in Pakistan. Both the textile industry and the commerce/trade industry are heavily dependent on agricultural products, in particular cotton, for export purposes. A downturn in the Pakistani agriculture sector could have a material adverse effect on the Group's financial condition and the results of its operations.

Changes in exchange control regulations could adversely affect the ability of the Company to receive dividends in foreign currency from SCE and affect the ability of SCE to obtain and service debt

Remittance of dividends and the proceeds of divestments of shares of a Pakistan company such as SCE to a non-resident such as the Company, as well as other remittances in foreign exchange through official banking channels (e.g. the repayment of principal and interest on foreign currency loans) from Pakistan to non-resident persons or entities are also subject to exchange control regulations of the SBP. There is a precedent involving the freezing of foreign currency accounts in Pakistan by the Government. Further, in view of the depleting foreign currency reserves held by the SBP, the possibility of more stringent foreign exchange controls and restrictions cannot be ruled out in the current fraught economic climate. These could adversely impact on the ability of the Company to receive dividends in foreign currency through official banking channels and the ability of SCE to repay foreign lenders.

Changes in the royalty rate under the Sindh Mining Concession Rules, 2002 could impact on the profitability of SCE and the Company

The current royalty rate payable on the disposal of coal by the holder of a mineral title is subject to change by the Government of Sindh. Accordingly, an increase in the rate of royalty could impact on the future cash-flow and profitability of SCE and the Company.

4. Risks associated with the Company's shares

Liquidity and volatility of the Ordinary Shares and AIM traded securities generally

An investment in the Ordinary Shares is highly speculative and subject to a high degree of risk. Application has been made for the Ordinary Shares to be traded on AIM. Admission to AIM should not be taken as implying that there will be a liquid market in the Ordinary Shares particularly as, on Admission, the Company will have a fairly limited number of Shareholders. There can be no assurance that an active or liquid trading market for the Ordinary Shares will develop or, if developed, that it will be maintained following the Placing. AIM is a market designed primarily for emerging or smaller growing companies which carry a higher than normal financial risk and tend to experience lower levels of liquidity than larger companies. Accordingly, AIM may not provide the liquidity normally associated with the Official List or some other stock exchanges. AIM is not the Official List and the Ordinary Shares will not be listed on the Official List. The rules of AIM are less demanding than those of the Official List and investments in shares traded on AIM carry a higher degree of risk than investments in

shares quoted on the Official List. The new Ordinary Shares may therefore be difficult to sell compared to the shares of companies listed on the Official List and the share price may be subject to greater fluctuations than might otherwise be the case.

The Company is aiming to achieve capital growth and, therefore, Ordinary Shares may not be suitable as a short-term investment. Consequently, the share price may be subject to greater fluctuation on small volumes of shares traded, and thus the Ordinary Shares may be difficult to sell at a particular price. Prospective investors should be aware that the value of an investment in the Company may go down as well as up and that the market price of the Ordinary Shares may not reflect the underlying value of the Company. There can be no guarantee that the value of an investment in the Company will increase. Investors may therefore realise less than, or lose all of, their original investment.

The share prices of publicly quoted companies can be highly volatile and shareholdings illiquid. The price at which the Ordinary Shares are quoted and the price which investors may realise for their Ordinary Shares may be influenced by a large number of factors, some of which are general or market specific, others which are sector specific and others which are specific to the Group and its operations. These factors include, without limitation, the performance of the Company and the overall stock market, large purchases or sales of Ordinary Shares by other investors, changes in legislation or regulations and changes in general economic, political or regulatory conditions and other factors which are outside of the control of the Company.

Shareholders may sell their Ordinary Shares in the future to realise their investment. Sales of substantial amounts of Ordinary Shares following Admission, or the perception that such sales could occur, could materially adversely effect the market price of the Ordinary Shares available for sale compared to the demand to buy Ordinary Shares. Such sales may also make it more difficult for the Company to sell equity securities in the future at a time and price that is deemed appropriate. There can be no guarantee that the price of the Placing Shares will reflect their actual or potential market value or the underlying value of the Company's net assets and the price of the new Ordinary Shares may decline below the Placing Price. The Placing Price has been determined by negotiation between Libertas and the Placees and may bear no relationship to the price of the Ordinary Shares that will prevail in the public market.

New Ordinary Shares available for future sale

The Company is unable to predict whether substantial amounts of new Ordinary Shares will be sold in the open market especially following termination of the lock-up restrictions, the terms of which are summarised in paragraph 12 of Part V of this document. Any sales of substantial amounts of new Ordinary Shares in the open market, or the perception that such sales might occur, could materially and adversely affect the market price of the new Ordinary Shares.

Future payment of dividends

There can be no assurance as to the level and frequency of future dividends. The declaration, payment and amount of any future dividends of the Company are subject to the discretion of the shareholders of the Company or, in the case of interim dividends to the discretion of the directors, and will depend upon, *inter alia*, the Company's earnings, financial position, cash requirements, availability of profits, as well as provisions for relevant laws or generally accepted accounting principles from time to time. For the foreseeable future, the Company intends to retain any future earnings for the business and therefore the Company does not anticipate paying, or have any plans to pay, dividends in the short to medium term.

The City Code may not in the future apply to the Company

It is currently intended that the Company's place of central management and control will remain in the UK and since the Company is incorporated in England and Wales, the City Code will for the time being apply to the Company. However, if in the future the place of central management and control changes, the City Code will not necessarily apply and the Company may not be subject to takeover regulation in the UK. Investors should be aware that the protections afforded to shareholders by the City Code which are designed to regulate the way in which take-overs are conducted will not under such circumstances be available. It is therefore possible that an offeror may gain control of the Company without any non-selling shareholders receiving, or being given the opportunity to receive, the benefit of any control premium paid to the selling shareholder(s).

Forward-looking statements

This document contains forward-looking statements that involve risks and uncertainties. All statements, other than statements of historical facts, contained in this document, including statements regarding the Group's future financial position, business strategy and plans, business model and approach and objectives of management for future operations, are forward-looking statements. Generally, the forward-looking statements in this document use words like "anticipate", "believe", "could", "estimate", "expect", "future", "intend", "may", "opportunity", "plan", "potential", "project", "seek", "will" and similar terms. The Group's actual results could differ materially from those anticipated in the forward-looking statements as a result of many factors, including the risks faced by the Group which are described in this Part II and elsewhere in this document. Investors are urged to read this entire document carefully before making an investment decision. The forward-looking statements in this document are based on the relevant Director's beliefs and assumptions and information only as of the date of this document, and the forward-looking events discussed in this document might not occur. Therefore, investors should not place any reliance on any forward-looking statements. Except as required by law or regulation, the Directors undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future earnings or otherwise.

It should be noted that the factors listed above are not intended to be exhaustive and do not necessarily comprise all of the risks to which the Group is or may be exposed or all those associated with an investment in the Company. **In particular, the Company's performance is likely to be affected by changes in market and/or economic conditions, political, judicial, and administrative factors and in legal, accounting, regulatory and tax requirements in the areas in which it operates and holds its major assets. There may be additional risks and uncertainties that the Directors do not currently consider to be material or of which they are currently unaware which may also have an adverse effect upon the Group and consequently the value of any prospective investment**.

If any or all of the risks referred to in this Part II actually crystallise, the Group's business, financial condition, results or future operations could be materially and adversely affected. **In such case, the price of the Company's shares could decline and investors may lose all or part of their investment**.

The investment opportunity described in this document may not be suitable for all recipients of this document. **Prospective investors are strongly recommended to consult an investment adviser authorised under FSMA who specialises in investments of this nature before making a decision to invest**.

PART III

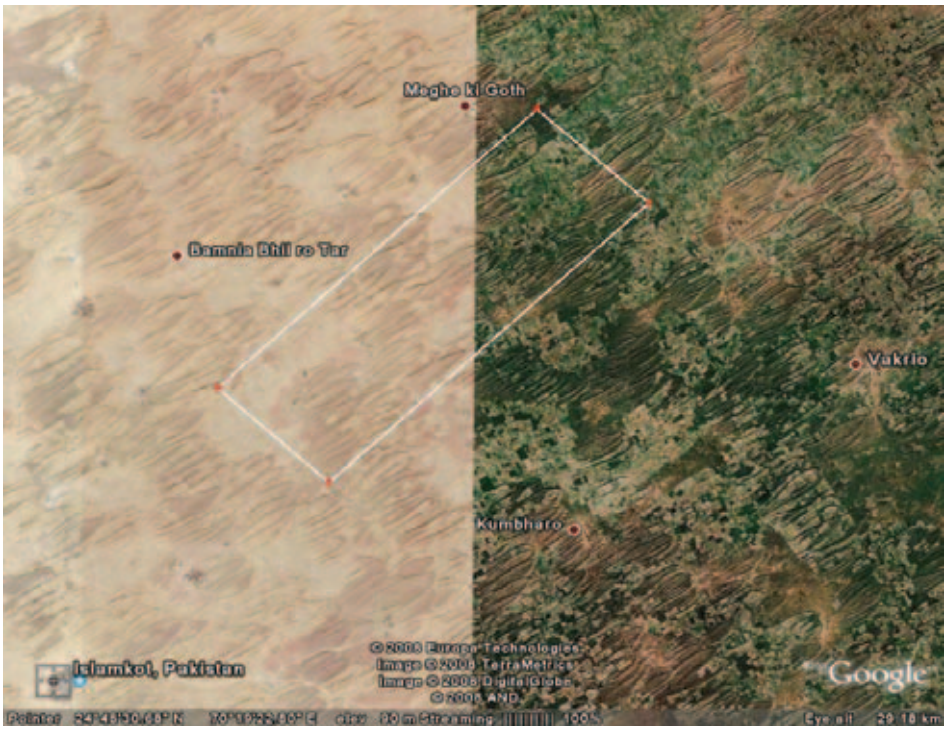
COMPETENT PERSON'S REPORT

COMPETENT PERSONS REPORT

ON

ORACLE COALFIELD PLC'S ASSETS

THAR COALFIELD BLOCK VI IN THE SINDH PROVINCE, PAKISTAN



FOR

ORACLE COALFIELDS PLC

MARCH 2011

CONTENTS

1 INTRODUCTION

1.1 Background

Oracle Coalfields plc has been granted an exploration licence to explore for and develop lignite deposits in the Sindh Province of Pakistan. Oracle's intention is to develop a lignite mine and associated 300MWe lignite fired power plant and also to mine and sell lignite for industrial purposes.

In January 2006, a consultancy agreement was drawn up between Dargo Associates Ltd and Oracle Coalfields plc to assess and evaluate coalfields in the Province of Sindh, Pakistan. In January 2008, Dargo Associates Ltd were appointed to oversee exploration in Badin and the Thar Coalfields.

Oracle Coalfields plc is listing on AIM to further the project by enhancing the Company's profile and raising funds from institutional investors, to inter alia, produce a Bankable Feasibility Report for Block VI, Thar Coalfield. To reach this stage, Oracle Coalfields plc is undertaking a series of studies and work programmes across a number of different disciplines.

Oracle's initial emphasis was on the Badin coalfield where development of an underground lignite mine was under consideration. An exploration licence was granted on 2nd February 2007 by Sindh coal Authority for an area of 100 km2. Following the completion of an initial three boreholes, the Company switched its focus to a second exploration lease in the Thar Coalfield where lignite can be extracted in more cost effective open pit operations. Oracle's joint-venture company, Sindh Carbon Energy Ltd. (Oracle 80%), was issued with an exploration licence over 66.1 km2 of Block VI, Thar Coalfield, District of Tharparkar, Sindh Province on 14 November 2007. This report is based on the original production target of 2.5Mtpa, the feasibility study will now target a production level of 4Mtpa as a more cost effective mining operation. In order to achieve this, a number of internationally accredited consultants have been engaged, SRK will undertake the mine design, Aquaterra will produce the hydrogeological model and Wardell Armstrong International will produce the Environment and Social Impact Assessment.

1.2 An Overview of PAKISTAN[1]

Pakistan, officially the **Islamic Republic of Pakistan** is a sovereign country located in South Asia. It has a 1,046 kilometre coastline along the Arabian Sea in the south, and is bordered by Afghanistan and Iran in the west, India in the east and China in the far northeast.

Pakistan is the sixth most populous country in the world and is the second most populous country with a Muslim majority. Its territory was a part of the pre-partitioned British India and has a long history of settlement and civilisation including the Indus Valley Civilisation. Most of it was conquered in the 1st millennium BCE by Persians and Greeks. Later arrivals include the Arabs, Afghans, Turks, Baloch and Mongols. The territory was incorporated into the British India in the nineteenth century. Since its independence, the country has experienced both periods of significant military and economic growth, and periods of instability, with the secession of East Pakistan (present-day Bangladesh).

In 1947 of British India was separated into the Muslim state of Pakistan (with two sections West and East) and India. Post-partition, Pakistan and India have fought two wars - in 1947-48 and 1965 - over the disputed Kashmir territory. Economic and political dissent in East

[1] (source: www.pakistan.gov.pk)

Pakistan led to violent political repression and tensions escalating into civil war (Bangladesh War of Independence) and ultimately the secession of East Pakistan as the independent state of Bangladesh.

Figure 1: Map of Pakistan

A third war between Pakistan and India held in 1971 resulted in East Pakistan becoming the separate nation of Bangladesh. In response to Indian nuclear weapons testing, Pakistan conducted its own tests in 1998.

Modern day Pakistan consists of four major parts called provinces Sindh, Punjab, Balochistan and Khyber Pakhtunkhwa (formerly North-West Frontier) Province. It also governs part of Kashmir which is currently split between Pakistan and India.

Area	:	796,096 square kilometres
Population	:	148.723 million
Location	:	South Asia, bordering the Arabian Sea, between India on the east and Iran and Afghanistan on the west and China in the north.
Land Boundaries	:	Total 7,266 km (Afghanistan 2,430 km, China 580 km, India 2,240 km, Iran 909 km).
Coastline	:	1,046 km
Climate	:	Mostly hot, dry desert, temperate in northwest; arctic in north.
Terrain	:	Flat Indus plain in east, mountains in north and northwest, Balochistan plateau in west and desert in south.
Elevation Extremes	:	Lowest point: Arabian Sea 0 m, Highest point: K2 (Mt. Godwin Austin - 8611 meters)
Independence	:	14th August 1947 (from Great Britain)
National Day	:	23rd March
Government Type	:	Parliamentary

Capital	**:**	Islamabad
Administrative Divisions	**:**	4 provinces (Punjab, Sindh, NWFP, Balochistan) Islamabad Capital Territory (ICT) Federally Administered Tribal Areas (FATA) Disputed Jammu & Kashmir region includes Azad Kashmir and the Northern Areas
Religions	**:**	Islam 97%, Christianity, Sikhism, Hinduism, and others 3%
Languages	**:**	National language: Urdu Official languages: Urdu and English Regional Languages: Sindhi, Pushto, Punjabi and Balochi

Year	2010	2011
Economy (Real GDP Growth %)	4.1	4.5
Average CPI inflation %	11.7	9.5
Fiscal Deficit % of GDP	6.3	4.0
Exports (f.o.b) **Imports (f.o.b)**	USD19.7BN USD31.2BN	USD20.0BN USD31.7BN
Foreign Exchange Reserves	USD16.7BN	USD17.47BN
Current Account Deficit % of GDP	2.3	3.4
Core Inflation (%)	15.5	

Table 1: Summary Pakistan Economy (source:SPB 2011)

1.3 Dargo Associates Ltd

Dargo Associates Ltd is an international coal consultancy formed in 1988 whose personnel have more than 30 years experience in the global coal industry. The company has specialists in geology, mining, coal preparation and mining finance. Dargo Associates Limited has no financial interest in Oracle Coalfields plc and remuneration for the work carried out in preparing this CPR is not dependent on the outcome of the flotation.

Dargo Associates Ltd provides services which cover the evaluation of individual coal mines and coal companies for purposes of both investment and divestment; negotiation of coal supply and coal management contracts for industrial use; the transportation of coal; as well as management, exploration, planning and design of deep and surface mines. Our experience includes the latest technologies and practices being applied in all of the major coal producing areas of the world.

Dargo Associates Ltd utilises analytical, as well as technical, skills for risk assessment attached to sourcing those quantities and qualities of coal required by the prospective user, especially power plants, and sensitive issues such as employment, environment, and economic affairs are handled with care. Dargo Associates Ltd places great emphasis on the accurate determination of the coal resource; assessing both quality and the recoverable and saleable reserves, based on application of the most suitable mining and beneficiation technologies.

Dargo Associates Ltd has extensive experience of the full range of coal exploration and drilling techniques including geophysical investigations, both down hole and surface, as well as full geotechnical and hydrogeological capability. We have experience of both open pit and

underground mines, utilising the complete range of mining techniques, and also have a wide range of experience in coal preparation techniques.

Dargo Associates Ltd has carried out due diligence in both individual mine projects and on Independent Power projects in Bosnia, Brazil, China, Colombia, Croatia, Guatemala, India, Indonesia, Kazakhstan, Poland, Russia, Turkey, Ukraine, United Kingdom, Vietnam and U.S.A., together with the evaluation of Coal Supply contracts and coal transportation arrangements.

Dargo Associates Ltd personnel have appeared as expert witnesses and have assisted in feasibility studies and Competent Persons Reports for mine and power plant development.

Dargo Associates Ltd has worked closely with a number of banks and financial institutions in acting as Lenders Engineer on major power projects and mine financings.

Dr Larry Thomas B.Sc, PhD, FIMMM, C.Eng, FGS, C.Geol, a Director of Dargo Associates Ltd heads the team that have compiled this report. He has been assisted by Steven Frankland B.Sc fellow Director of Dargo Associates, Professor Vladimir Pavlovic PhD Head of mining and Geology, University of Belgrade, Mr Alf Thomas B.Sc, a power plant design engineer and Isabel Stanley B.Sc, an environmental consultant, both of Mott Macdonald, the largest engineering and environmental consulting group in the UK.

For the purposes of this report and the JORC Code (2004), Dr Larry Thomas B.Sc, Ph.D, FIMMM, C.Eng, FGS, C.Geol is the Competent Person for the manipulation of the database and preparation of the geological interpretation on which the resource/reserve estimate has been based.

1.4 Objectives and Scope.

The objective of this investigation is to identify an area in the Thar Coalfield with JORC compliant reserves sufficient for and assess the potential to operate, an open pit lignite mine as a supply source to a 300 MWe mine mouth thermal power plant.

Previous investigations by the China Northeast Coalfield Geological Survey Bureau (2006) have enabled a number of block areas to be reviewed. From this review, Block VI was selected as having the potential for the mine/power plant to be developed.

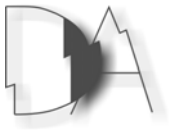
Dargo Associates Ltd has visited the Badin Coalfield and Block VI, Thar Coalfield on a number of occasions and also visited the Coal and Energy Development Department, Government of Sindh (formerly Mines and Minerals Development Department), Sindh Coal Authority, Pakistan Ministry of Mines and Pakistan Government Laboratories, all in Karachi.

Details of all previous work by the Geological Survey of Pakistan, Rheinbraun Engineering, Sindh Coal Authority and China Northeast Coalfield Geological Survey Bureau have been made available and all documents have been reviewed. In addition, the latest exploration drilling results and laboratory testing has been monitored and included in the data base.

This report includes a review of the geology, the resources/reserves according to JORC (2004), description of the most likely mining operations, environmental analysis and development of the potential power plant.

1.5 Location.

Both the Badin and Thar Coalfields are located in the Province of Sindh, situated in the south east of Pakistan (Figure 5). The Province is dominated by the valley of the River Indus, one of Asia's major rivers. Badin and Thar lie to east of the River Indus, south east of the major city of Hyderabad. The Thar desert covers an area of 22,000 km^2, of which the Thar Coalfield is



9,100 km^2 in area, and 380 km east of Karachi. Block VI is located 20 km north east of the small town of Islamkot (Figure 5) and access to Block VI is by an all weather highway from Karachi, via the towns of Badin and Mithi, which extends to the village of Singharo (Figure 2) and power transmission lines extend to the edge of the Block VI area. Within Block VI, access is currently possible using four-wheel drive vehicles on dirt roads (Figure 3 and Figure 4).

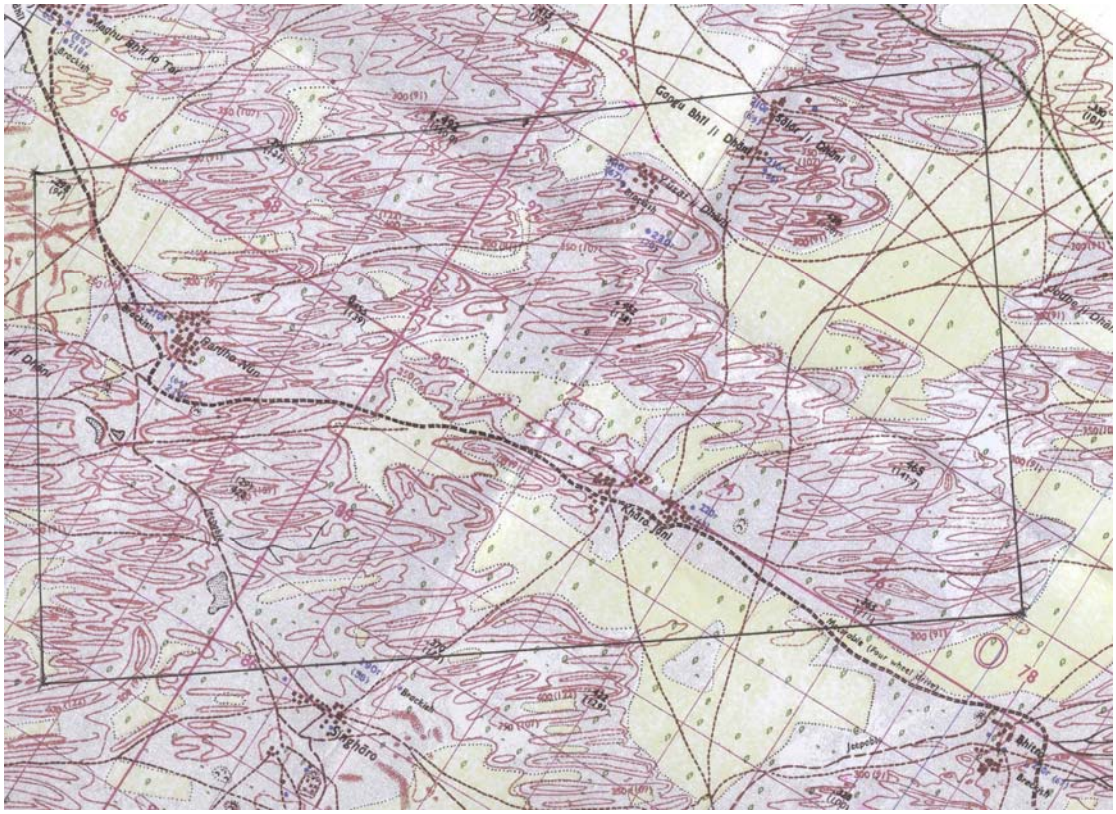


Figure 2: Block VI Thar Coalfield

Figure 3: Thar Coalfield Block VI Semi-arid Topography 1

Figure 4: Thar Coalfield Block VI Semi-arid Topography 2

Present in Block VI are the two small villages of Ranjho nun and Kharo Jani, occupied by nomadic tribes people. Apart from these settlements, Block VI is uninhabited.

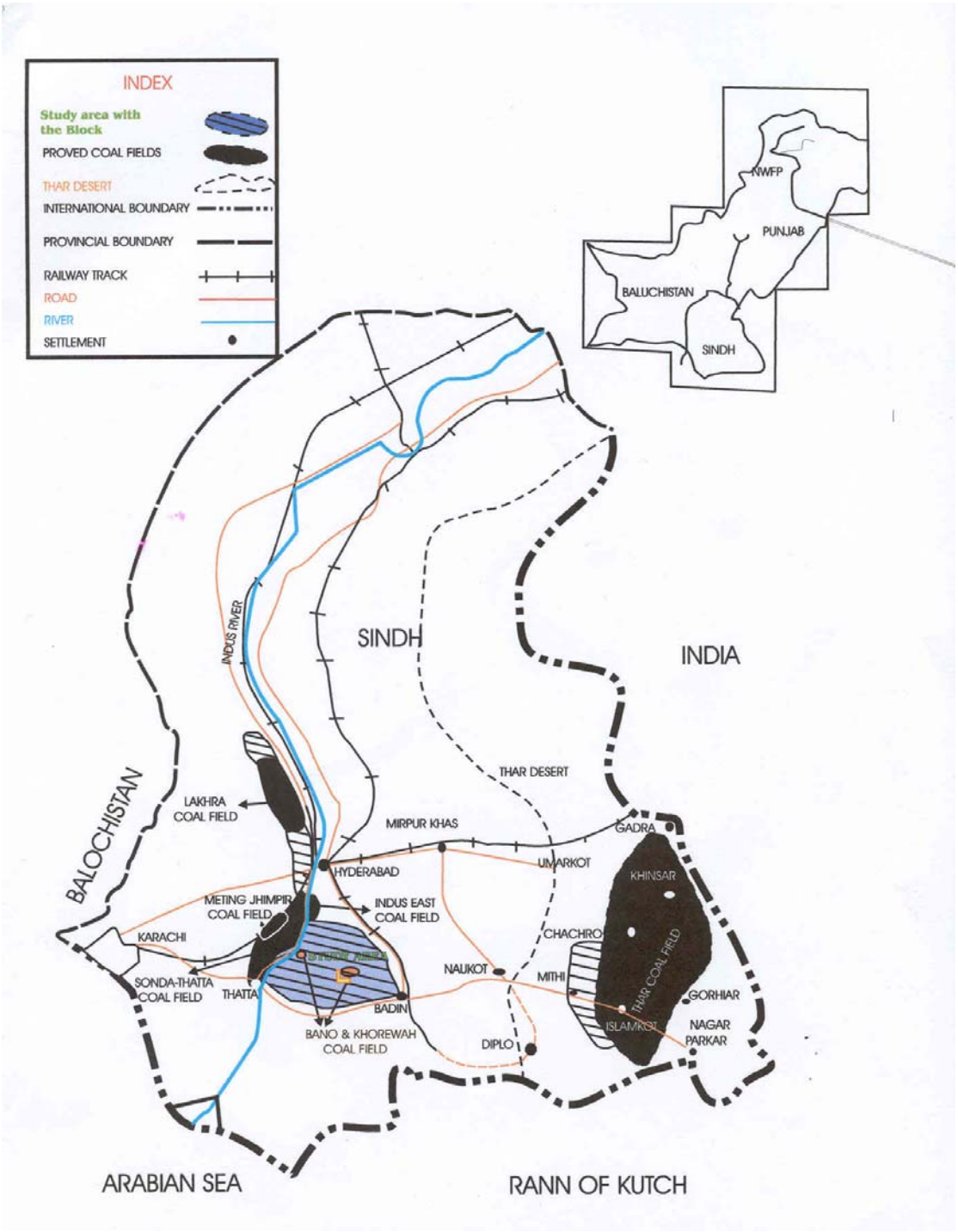


Figure 5: Location Map of Coalfields, Sindh Province, Pakistan.
(after China Northeast Coalfield Geological Survey Bureau 2007)

1.6 Topography.

Topographically the Block VI area is dominated by the presence of a series of elongate sand dunes trending southeast-northwest, with intervening flat areas (Figure 2). The dunes are up to 30m in height and have a sporadic covering of vegetation. There are no surface river courses or any other significant topographical features.

1.7 Security.

During the period 2006-2011 Dargo Associates' personnel have visited Pakistan on a number of occasions. At all times the security provided in Karachi, Badin Area and Thar area has been excellent. At no time was any civil disturbance encountered, and the coalfield areas are not centres of population or areas of political unrest. From these experiences it is considered that the project areas are low risk areas but that security measures should still be maintained for visiting personnel. Dealings with the Government Ministries and the Sindh Coal Authority have been good, technical data has been made available and generally the project has been well received.

Dargo Associates draws attention to the UK Government's Foreign and Commonwealth Office Travel advisory for Pakistan.

1.8 Description of Assets

1.8.1 Thar Coalfield

On 3 November 2007, SCE have signed a MOU with the SCA to carry out the establishment of an integrated mine mouth coal fired power station in the Thar coalfields in the Tharparkar District, Sindh, Pakistan.

SCA allocated a designated block area known as Block VI which covers an area of 66.1 km^2 as shown in Figure 7. SCA granted SCE an exploration licence on 14th November 2007 for the Block VI area for a period of three years, this expired on 7th November 2010. An extension was applied for and granted by SCA for another year to 24th November 2011. All monies required as security have been paid to SCA by SCE.

Exploration Permit	Permit Holder	OCF Interest (%)	Status	Licence Expiry Date	Licence Area (km^2)	Comments
Badin	Sindh Carbon Energy Ltd	80	Exploration	2nd February 2012	100	3 boreholes were drilled, area put on hold
Block VI, Thar	Sindh Carbon Energy Ltd	80	Exploration	24th November 2011	66.1	7 boreholes drilled in 2008 27 boreholes drilled in 2010/2011 8 water wells drilled in 2010. All sampled and tested

Table 2: Summary of assets and ownership.

SCE have complied with the conditions laid out in the exploration licence including the demarcation of the area in accordance with the agreed boundaries of the licence area. In

addition, all technical results have been supplied to SCA, who in turn have provided copies of previous technical works carried out in the Block VI area.

Again these two documents have been seen and read by Dargo Associates Ltd.

The Block VI area is one of a number of blocks allocated by Sindh Coal Authority, and is bordered on the east by Block III and on the southeast by Block II.

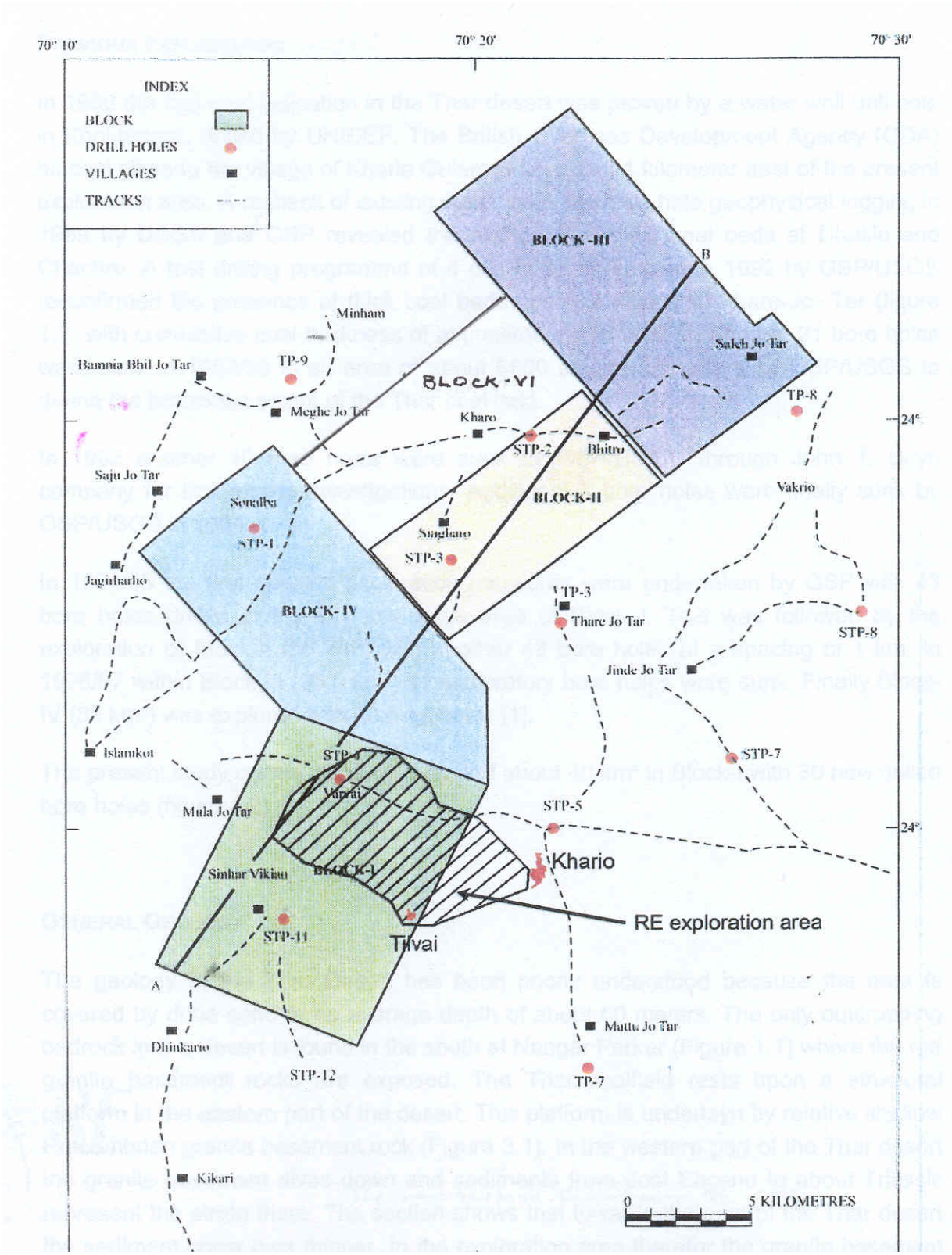
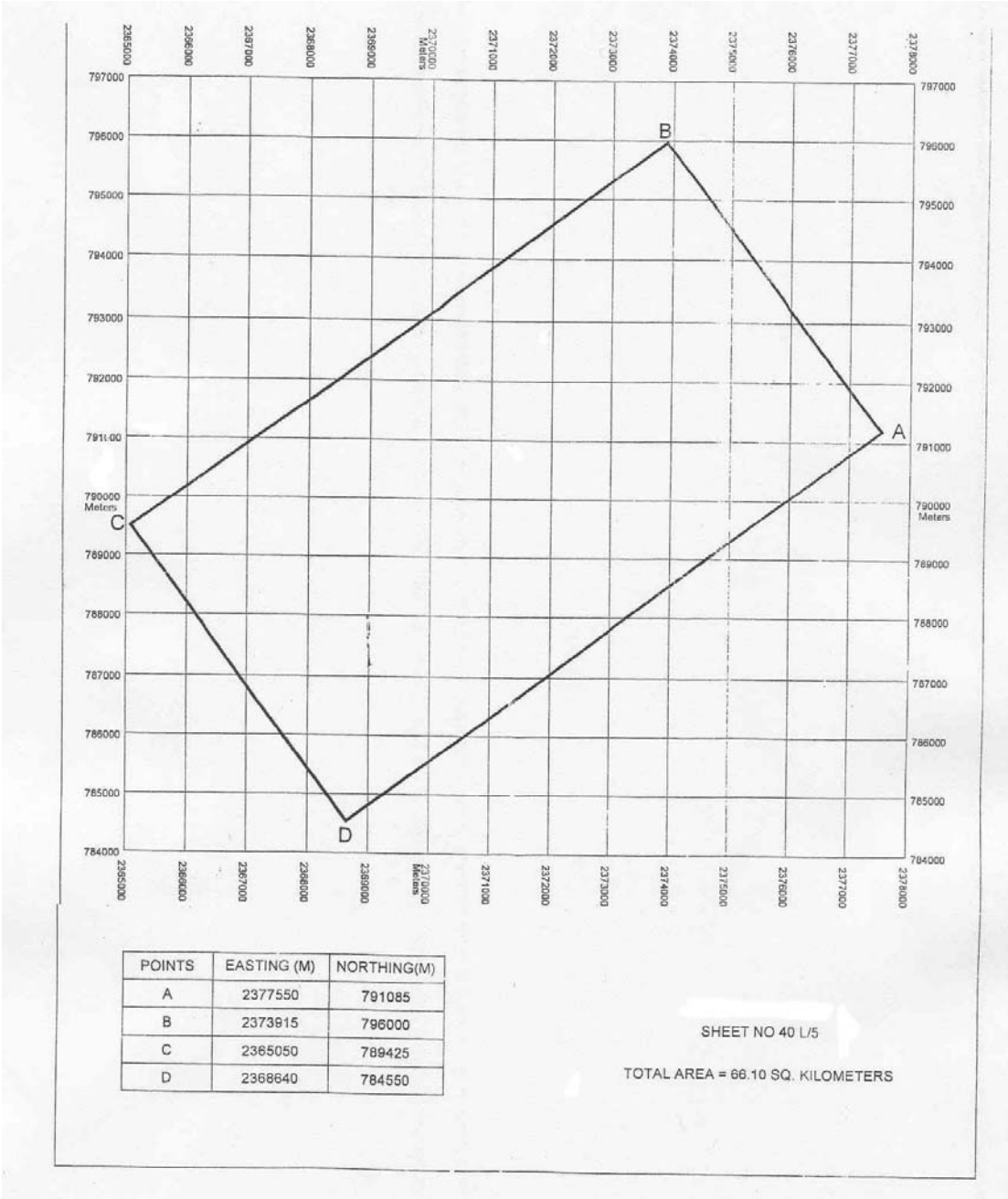


Figure 6: Thar Coalfield Allocated Blocks



POINTS	EASTING (M)	NORTHING(M)
A	2377550	791085
B	2373915	796000
C	2365050	789425
D	2368640	784550

SHEET NO 40 L/5

TOTAL AREA = 66.10 SQ. KILOMETERS

Figure 7: Thar Coalfield Block VI Lease Area (showing grid reference coordinates)

2 GEOLOGY

2.1 Regional Geology.

The Thar Coalfield underlies the Thar Desert area in the eastern part of Sindh Province, Pakistan (Figure 5). The coalfield is estimated to cover an area of some 9,100 km^2.

The Thar Desert is covered by dune sand to an average depth of 60m. The only outcrops of bedrock are found in the southeast at Nagarparkar where basement rocks of red granite are exposed. Below the dune sand, a sequence of sands and mudstones of Sub-Recent age represent the alluvial deposits of the Indus valley and are up to 100m in thickness.

A generalised stratigraphic column for the Thar coalfield is shown in Figure 8.

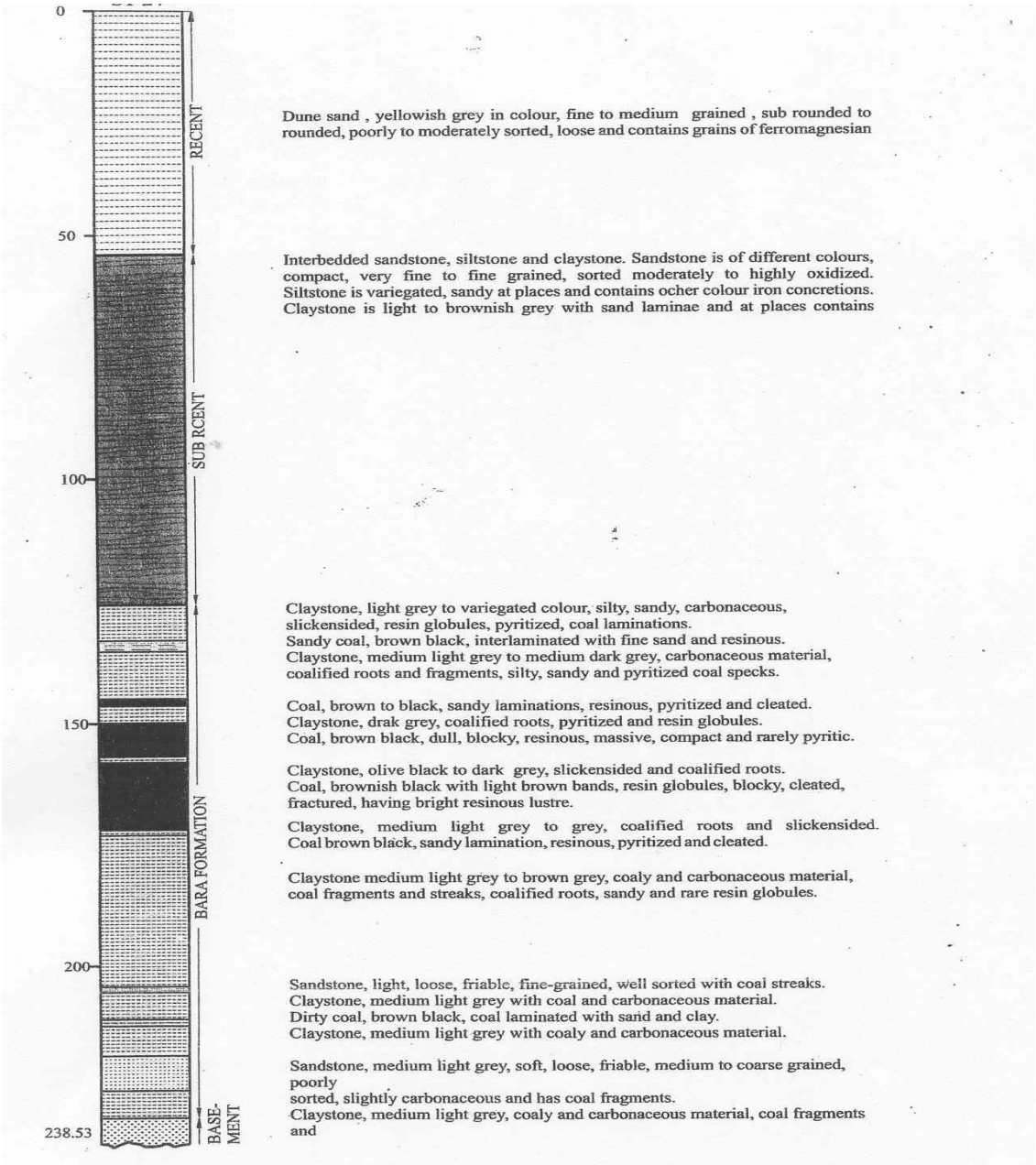


Figure 8: Generalised Stratigraphic Column, Thar Coalfield, Sindh Province
(after Jaleel et al 2002)

The Thar Coalfield consists of sediments of Tertiary (Late Palaeocene to early Eocene) age. The eastern part of the Coalfield rests directly on a structural platform of Pre-Cambrian basement, which is made up of schists, gneisses, granites and younger intrusives. To the west, the Coalfield is underlain by a thick sequence of limestones and sandstones of Triassic to Cretaceous age, which thin eastwards against the basement.

The Tertiary sediments which comprise the Thar Coalfield were deposited in a structural basin created in the post-Cretaceous period. Within the basin, a sequence of sandstones, mudstones and coals were deposited, reaching a thickness of 500m in the west and 280m in the east. These sediments are attenuated against the margins of the basin and individual members can be of variable thickness.

The principal area of interest lies in the eastern part of the Thar Coalfield where coal-bearing sediments lie within 200m of the surface. Here, these intrabasinal sediments have low angle dips and little structural dislocation, and present a relatively simple geological setting. This is supported by the numerous boreholes that have been drilled in this part of the Coalfield.

2.2 Detailed Geology.

The Thar Coalfield is covered by dune sand of Recent age. The dune sand is quartz-rich with little amounts of ferromagnesian minerals. The lower part is principally yellow-grey sand with large amounts of calcareous material, above which are yellow and orange-grey sands with little calcareous material. The dune sands vary in thickness from 30-110m.

Beneath the dune sand are alluvial sediments of Sub Recent age, these are present over the whole coalfield area and consist of three units. The upper unit is one of fine sandstone and siltstone, yellow, grey and red in colour. The middle unit is made up of grey and blue-grey siltstones and mudstones. The lower unit is comprised of white to light grey coarse-grained sandstones and gravel, the matrix is predominantly kaolinitic with small amounts of ferromagnesian minerals. The Sub Recent formation ranges from 11-127m in thickness across the coalfield.

The base of the Sub-Recent is marked by an erosion surface below which are sediments of the Bara Formation of Palaeocene to Early Eocene age. These sediments are deltaic and fluvial in origin. The Bara Formation can be sub-divided into an upper unit of mudstones and siltstones containing thin lignite seams, followed by a middle unit of mudstones and lignite seams. This is succeeded by a lower unit comprised of grey to white coarse sandstone, mudstone and thin lignite layers. The total thickness of the Bara Formation ranges from 50-150m.

Underlying the Bara Formation in the eastern part of the Thar Coalfield, are granite, volcanics and minor intrusives of Pre-Cambrian age, which form the Basement complex, present across the Indian Sub-Continent.

Structurally, the Thar Coalfield appears to be in a simple tectonic setting, with little evidence of significant tectonic discontinuities such as faults. The regional dip of the strata is around 3°. Across the Thar Coalfield as a whole, variations in development of individual sand bodies and lignite accumulation are the principal elements of concern.

The hydrogeology of the Thar Coalfield has been studied only in general by SCA, with more detailed studies carried out by Rheinbraun Engineering (RWE) in 2004 and by CNGB in 2006. The presence of three distinct water bearing horizons have been established. Shah (2007) gave a presentation of this work.

The upper aquifer horizon occurs in the yellow sandstones of the Sub-Recent at a depth of 50-90m and is 5-12m in thickness. Previous work (China Northeast Geological Bureau (CNGB)

2006) has indicated that the permeability is poor and flow is slow (0.08L/s). The pH value is given as 7.9-8.7. Shah (2007) gives a water quality of 2,500-4,000 ppm total dissolved solids (TDS). RWE (2004) calculated a permeability value (K) of $3x10^{-5}$ m/s.

The second aquifer is present at a depth of 100-150m in grey medium-coarse sandstone, it has a thickness of around 60-70m. CNGB (2006) state that the permeability is average with an outflow rate of 0.015-0.257 L/s and has a pH value of 7.6-8.6. Shah (2007) gives a figure of >5,000 ppm TDS. RWE (2004) again calculated a permeability value (K) of 10^{-5} – $5x10^{-5}$ m/s.

The third and lowest aquifer is situated in the lower part of the Bara Formation usually below the main lignite bearing sequence, its base being at a depth of 190-300m, and a thickness of up to 80m. CNGB (2006) give an outflow rate of 0.08-0.7 L/s with a pH of 7.9-8.0. RWE carried out pumping tests on this aquifer and give a permeability value (K) of $6.3x10^{-5}$ m/s.This aquifer water contains a high level of mineralisation, Shah (2007) gives a figure of 20,000-50,000 ppm TDS. CNGB (2006) state that the base of the main lignite seam is composed of tight mudstone forming a good aquiclude layer.

The lower two aquifers are under hydrostatic pressure which will produce artesian conditions when breached. This is more acute in the case of the lowest aquifer.

2.3 Previous Exploration

Following the discovery of coal in the Thar Coalfield in 1980, the USGS together with the Geological Survey of Pakistan (GSP) drilled 38 boreholes in 1992-94 over an area of 9,100 km^2 to delineate the Thar Coalfield.

In 1993-97, GSP drilled 155 boreholes and estimated the total coal resources to be 175 billion tonnes. Further drilling in specific block areas, totalling 193 boreholes, followed this.

In 2003-04, RWE carried out coal exploration in a selected 40 km^2 area of the Thar Coalfield. This work included the drilling of 30 boreholes, of which 26 were cored and most were geophysically logged. More than 300 coal samples were analysed. Within this area, a total coal resource of 1 billion tonnes was estimated of which 588 million tonnes (Mt) was classified as measured reserves using the USGS Standard. In addition, RWE carried out pumping tests on two wells in the lowest aquifer situated beneath the main lignite seam, together with some water analyses.

In 2002-04, the China Shenhua Group employed CNGB to carry out the drilling of 120 coal exploration boreholes plus 13 boreholes for hydrogeological study in their selected Block II area.

In 2006, the CNGB were contracted by the Sindh Coal Authority (SCA) to carry out further exploration in the 6 designated block areas in the Thar Coalfield. In the Block VI area, 35 cored boreholes were drilled with a total metreage of 9,852m covering the whole Block VI area of 66.1 km^2. Coal analyses were carried out on all boreholes and all were geophysically logged. The total coal resource calculated by CNGB for the entire Block VI area was 1.65 billion tonnes. Coal and overburden thickness plans plus stripping ratio (SR) plans were produced. CNGB only studied the hydrogeology in Block II area and applied these results to the surrounding blocks including Block VI.

On the basis of the previous work and in particular the recent exploration by CNGB on behalf of the SCA, A MOU was signed on 3 November 2007 between Sindh Coal Authority and Oracle Coalfields plc and an exploration licence was obtained to further explore the Block VI area.

2.4 2008 Exploration.

Following receipt of the CNGB reports from the SCA, Oracle Coalfields plc have evaluated the data and drilled a further seven exploration borehole locations designated SCE-1 to SCE-7. Figure 9 shows the locations of these boreholes plus the CNGB boreholes. Of the Oracle boreholes three were fully cored and four part cored holes, the former to provide rock core samples for geotechnical testing. All seven boreholes would provide coal samples for analysis.

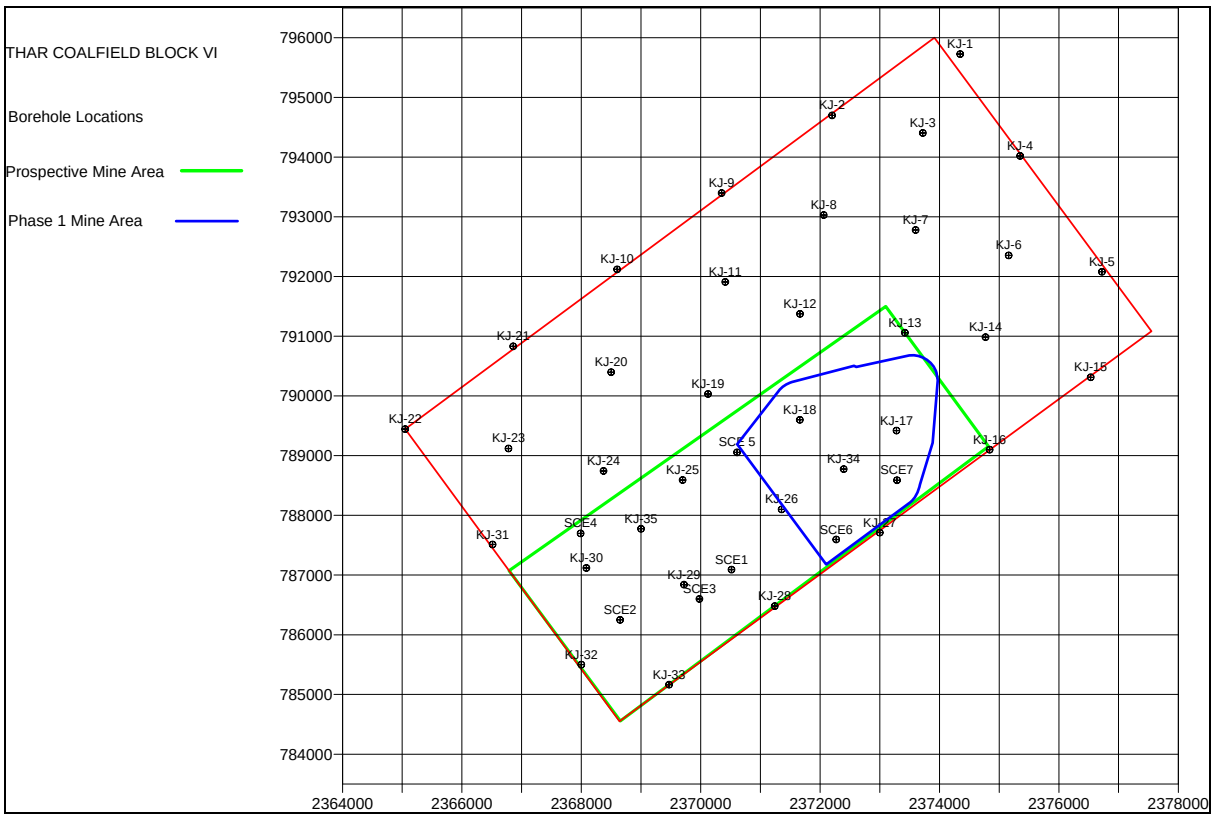


Figure 9: Thar Coalfield Block VI Borehole Locations

Deep Rock Drilling (PVT) Ltd. of Karachi carried out the drilling and Geoscience Associates of Lahore performed the geophysical logging. Lignite samples were analysed by the Fuel Research centre – PCSIR, Karachi, and rock samples were tested by Strata Surveys, UK.

2.4.1.1 Drilling Results.

In February-April 2008, a series of seven boreholes were drilled to depths of 200-240m, four of which were open-holed to 100m, the other three being fully cored.

The results of the drilling programme have confirmed the presence of the main lignite seam 2-7, with a total lignite thickness in the seven boreholes of 20-30m. The overburden thickness and lignite thickness confirm the findings of the CNGB drilling.

These results validate the CNGB borehole data, which can now be used together with this recent drilling to enable a lignite resource/reserves assessment to be made (see below).

Borehole SCE-1 was a fully cored borehole drilled to a depth of 220m. The contact between the Sub-Recent and the Bara Formation was recorded at 128.19m and the top of the main seam was at 160.22m. Lignite intercepts are shown in Table 3. The lignite had a cumulative thickness of 22.31m.

Lignite	From (m)	To (m)	Total Lignite Thickness (m)	Lignite Sample No.
SCE-1- 1	129.65	130.40	0.75	SCE-1-A
SCE-1-2	143.62	144.35	0.73	SCE-1-B
SCE-1-3	147.17	148.01	0.84	SCE-1-C
SCE-1-4	148.87	149.17	0.30	SCE-1-D
SCE-1-5	150.02	150.62	0.60	SCE-1-E
SCE-1-6	150.94	152.72	1.78	SCE-1-E1/E2
SCE-1-7	153.10	154.47	1.37	SCE-1-E3
SCE-1-8	155.64	156.56	0.92	SCE-1-E4
SCE-1-9	160.22	170.95	10.73	SCE-1-F/F5
SCE-1-10	184.37	185.61	1.20	SCE-1-G/G1
SCE-1-11	205.86	206.78	0.92	SCE-1-H
SCE-1-12	209.61	211.34	1.73	SCE-1-I

Table 3: Lignite Seam Intercepts in Borehole SCE-1

Borehole SCE-2 was a part cored borehole drilled to 208m. The Sub-Recent/Bara Formation boundary was at 145.56m and the top of the main seam was at 176.65. The total cumulative thickness of lignite was 21.97m. Lignite intercepts are shown in Table 4.

Lignite	From (m)	To (m)	Total Lignite Thickness (m)	Lignite Sample No.
SCE-2-1	150.49	150.99	0.50	SCE-2-A
SCE-2-2	163.16	163.80	0.64	SCE-2-B
SCE-2-3	168.18	170.30	2.12	SCE-2-C/C1
SCE-2-4	172.94	173.94	1.0	SCE-2-D
SCE-2-5	175.62	176.15	0.53	SCE-2-E
SCE-2-6	176.65	180.96	4.31	SCE-2-F/F1
SCE-2-7	185.82	189.56	3.74	SCE-2-G/G1
SCE-2-8	190.38	196.55	6.17	SCE-2-H/H1
SCE-2-9	197.35	198.31	0.46	SCE-2-I

Table 4: Lignite Seam Intercepts in Borehole SCE-2

Borehole SCE-3 was a part cored borehole drilled to 202.69m. The Sub-Recent/Bara Formation boundary was at 128.83m and the top of the main seam was at 162.00m. The total cumulative thickness of lignite was 20.92m. Lignite intercepts are shown in Table 5

Lignite	From (m)	To (m)	Total Lignite Thickness (m)	Lignite Sample No.
SCE-3-1	137.26	137.72	0.46	SCE-3-A
SCE-3-2	140.26	140.61	0.35	SCE-3-B
SCE-3-3	147.19	147.84	0.65	SCE-3-C
SCE-3-4	149.25	155.24	5.99	SCE-3-D/D1
SCE-3-5	162.00	173.67	11.67	SCE-3-E/E6
SCE-3-6	176.05	178.05	2.00	SCE-3-F

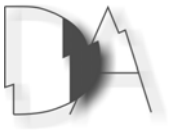
Table 6: Lignite Seam Intercepts in Borehole SCE-3

Borehole SCE-4 was a fully cored borehole drilled to 200m. The Sub-recent/Bara Formation boundary was at 122.66m and the top of the main seam was at 156.10m. The cumulative thickness of lignite was 28.96m. Lignite intercepts are shown in Table 7.

Lignite	From (m)	To (m)	Total Lignite Thickness (m)	Lignite Sample No.
SCE-4-1	122.66	123.33	0.67	SCE-4-A
SCE-4-2	129.05	130.50	1.45	SCE-4-B
SCE-4-3	142.89	144.15	1.26	SCE-4-C
SCE-4-4	147.73	149.22	1.49	SCE-4-D/D1
SCE-4-5	151.46	152.39	0.70	SCE-4-E/E1
SCE-4-6	152.69	152.99	0.30	SCE-4-F
SCE-4-7	155.22	155.52	0.30	SCE-4-G
SCE-4-8	156.10	175.66	19.56	SCE-4-H/H8
SCE-4-9	176.23	178.21	1.98	SCE-4-I
SCE-4-10	192.17	193.19	1.02	SCE-4-J

Table 7: Lignite Seam Intercepts in Borehole SCE-4

Borehole SCE-5 was a part cored borehole drilled to 220m. The Sub-recent/Bara Formation boundary was at 124.74m and the top of the main seam was at 154.32m. The cumulative thickness of lignite was 28.96m. Lignite intercepts are shown in Table 8.



Lignite	From (m)	To (m)	Total Lignite Thickness (m)	Lignite Sample No.
SCE-5-1	126.31	127.31	1.00	SCE-5-A
SCE-5-2	138.18	139.03	0.85	SCE-5-B
SCE-5-3	140.49	141.73	1.24	SCE-5-C
SCE-5-4	145.32	145.72	0.40	SCE-5-D/D1
SCE-5-5	147.73	148.43	0.70	SCE-5-E
SCE-5-6	151.19	151.69	0.50	SCE-5-F
SCE-5-7	152.38	153.58	1.20	SCE-5-G
SCE-5-8	154.32	172.67	14.69	SCE-5-H/1,I/I3
SCE-5-9	173.39	175.39	2.00	SCE-5-J
SCE-5-10	177.96	178.72	0.76	SCE-5-K
SCE-5-11	199.64	200.19	0.55	SCE-5-L

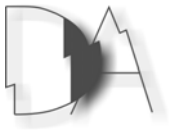
Table 8: Lignite Seam Intercepts in Borehole SCE-5

Borehole SCE-6 was a part cored borehole drilled to 240m. The Sub-recent/Bara Formation boundary was at 143.42m and the top of the main seam was at 173.51m. The cumulative thickness of lignite was 30.16m. Lignite intercepts are shown in Table 9.

Lignite	From (m)	To (m)	Total Lignite Thickness (m)	Lignite Sample No.
SCE-6-1	148.81	150.26	1.45	SCE-6-A
SCE-6-2	159.67	161.03	1.36	SCE-6-B/B1
SCE-6-3	165.51	166.94	1.43	SCE-6-C/C1
SCE-6-4	173.51	196.53	23.02	SCE-6-D/D10
SCE-6-5	197.18	198.18	1.00	SCE-6-E
SCE-6-6	220.35	221.15	0.80	SCE-6-F

Table 9: Lignite Seam Intercepts in Borehole SCE-6

Borehole SCE-7 was a fully cored borehole drilled to 200m. The Sub-recent/Bara Formation boundary was at 130.76m and the top of the main seam was at 162.65m. The cumulative thickness of lignite was 24.63m. Lignite intercepts are shown in Table 10.



Lignite	From (m)	To (m)	Total Lignite Thickness (m)	Lignite Sample No.
SCE-7-1	133.35	133.75	0.40	SCE-7-A
SCE-7-2	142.89	144.34	1.45	SCE-7-B
SCE-7-3	147.12	147.72	0.60	SCE-7-C
SCE-7-4	152.38	153.28	0.90	SCE-7-D/D1
SCE-7-5	155.01	155.78	0.77	SCE-7-E
SCE-7-6	156.21	160.78	4.57	SCE-7-F/F1
SCE-7-7	162.65	163.55	0.9	SCE-7-G
SCE-7-8	163.55	173.42	12.58	SCE-7-H/H4
SCE-7-9	184.19	186.69	2.50	SCE-7-I
SCE-7-10	186.92	187.67	0.75	SCE-7-J

Table 10: Lignite Seam Intercepts in Borehole SCE-7

2.4.1.2 Geophysical Logging.

In 2006, CNGB geophysically logged 35 boreholes in the Block VI area, using a modern Chinese TYSC-2 integrated digital logging system that included calliper, density, resistivity and a variety of radioactive measuring down hole tools (sondes).

In the current prospective mine area are located 15 of the CNGB boreholes, an example of which is borehole KJ-28. A portion of the geophysical log from this borehole is shown in Figure 10. The radioactivity log at the top of Figure 10 shows a characteristic 'spike' which can be correlated with a radioactive marker horizon of coarse sand, which marks the base of the Sub-Recent, sediments. This marker horizon is present on all of the CNGB geophysical logs of the area and provide a valuable means of inter borehole correlation. Within the Bara Formation beneath this marker horizon, the density and radioactivity logs pick out the main lignite seam (16.95m in KJ-28), and also the thinner lignite seams, which give a total lignite thickness in the boreholes of interest of over 20m.

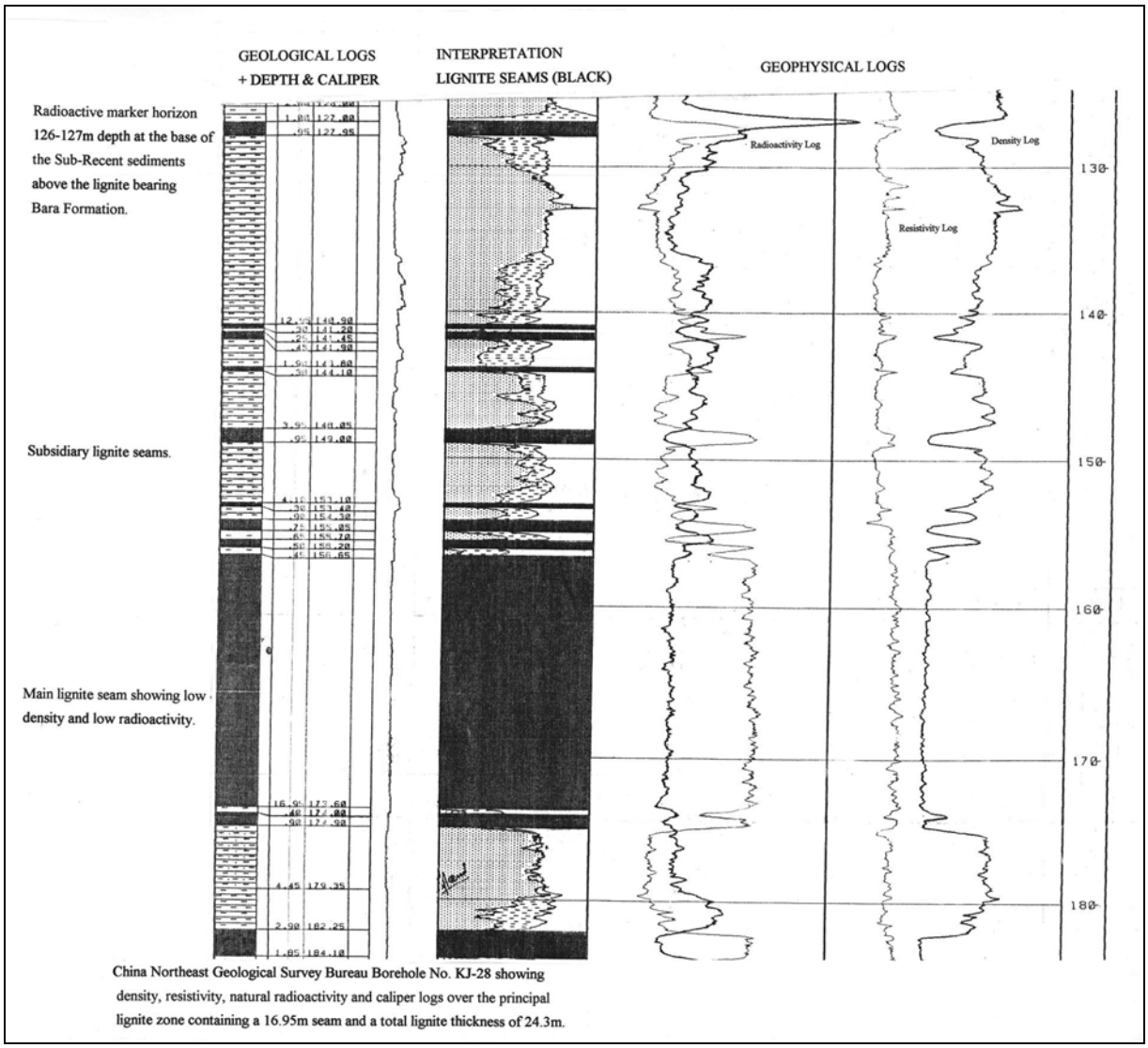


Figure 10: Portion of Geophysical Log from Borehole KJ-28 showing Main Lignite Seam

These geophysical results correlate well with the geophysical logs recorded by GA in the seven boreholes drilled in February-April 2008. These boreholes were logged using calliper, density, resistivity and radioactivity sondes. The geophysical logs for all these boreholes clearly show the radioactive 'spike' denoting the marker horizon at the base of the Sub-Recent formation, and the main lignite seam within the underlying Bara Formation. These results can be related using the marker horizon, to the CNGB logs and a comparison made of the depth and thickness of the lignite seam below the marker horizon, so validating and confirming the CNGB results.

For example, the Geoscience Associates geophysical logs for SCE-6 correlate well with the CNGB logs for the nearby boreholes KJ-26 and KJ-27. Also, the Geoscience Associates logs of borehole SCE-5 show good correlation with nearby CNGB logs in boreholes KJ-18 and KJ-25.

This illustrates that the CNGB and GA geophysical log interpretations are similar regarding the main lignite seam depth and thickness, thus confirming all the CNGB borehole results and expanding the geophysical data base for the Block VI area.

2.4.1.3 Lignite Quality

Lignite quality data is based on work carried out by CNGB, analysed by the Fuel Research Institute in Karachi and analysis of lignite samples obtained from Oracle Coalfields' recent drilling programme, analysed by the Fuel Research Institute and by TES Bretby in the UK.

TES Bretby carried out Ultimate Analysis, Ash Fusion Temperature Analysis and Ash Composition Analysis, which the Karachi laboratory is unable to carry out at this time. The samples were prepared by PCSIR; taken from residue samples from each of the boreholes in the SCE drilling programme. These analyses are included in Table 10, which shows the average quality of all mineable lignite in the planned mining area. This summary is derived from all the analyses from CNGB and the SCE drilling programme..

No direct comparison can be made between the Fuel Research Centre analyses and the TES Bretby results due to differences in as analysed moisture and differing compositing methods. The results are however, in general agreement.

All the above analyses are consistent with the CNGB results.

The lignite is typical for power station grade lignites and is entirely suitable for combustion for power generation. Lignite is mined and used for power generation in Rajasthan State of India, close to the border with Pakistan.

Analysis	Air Dried (ad)	As Received (ar)
Moisture%	14.1	40.4
Ash%	10.8	7.5
Volatile Matter%	47.0	32.7
Sulphur%	1.8	1.2
Gross Calorific Value kcal/kg	5,098	3,537
Net Calorific Value kcal/kg	N/A	3,160
Ultimate Analysis	**Dry Ash Free**	
Carbon%	71.8	
Hydrogen%	5.1	
Oxygen%	19.0	
Nitrogen%	0.8	
Ash Analysis%	**In ash basis**	
SiO_2	22.1	
Al_2O_3	13.2	
Fe_2O_3	9.2	
TiO^2	2.0	
CaO	18.7	
MgO	7.5	
Na_2O	4.8	
K_2O	0.5	
Mn_3O_4	0.3	
P_2O_5	<0.1	
SO_3	21.2	
Ash Fusion Temperature		
Initial Deformation °C	1185	
Spherical °C	1210	
Hemispherical °C	1220	
Flow °C	1230	

Table 10: Lignite Quality

2.4.1.3.1 Moisture

The moisture content is in the range 28.9% to 48.9% and the average value is 40.4%, which is typical of lignite. Higher moisture indicates lower calorific value and is undesirable. The standard deviation is 5.2% which shows good consistency.

2.4.1.3.2 Ash

The ash content is in the range 3.4% to 14.5% with an average of 7.5% (all on the As Received basis), which low in comparison to many types of lignite in use for power generation in the Balkan Region, but typical of the lignites found in Pakistan and India. Higher ash content is undesirable. The standard deviation of the results is 2.4, which also shows good consistency.

2.4.1.3.3 Sulphur

The sulphur content is in the range 0.3% to 2.6% with an average of 1.2% (As Received basis), which is acceptable for power generation with flue gas desulphurisation (FGD). Higher sulphur increases the cost of FGD and is undesirable.

2.4.1.3.4 Calorific Value

The as received gross calorific value determined by the Fuel Research Centre is in the range 3,009 kcal/kg to 3,952 with an average value of 3,537 kcal/kg. The Net Calorific value of 3,160 kcal/kg is calculated from the above Gross Calorific Value and the TES Bretby Ultimate Analysis.

The calorific value affects the amount of lignite used for power generation so higher values are preferable.

2.4.1.3.5 Ash Fusion Temperature

The average Ash Fusion Temperatures determined by TES Bretby are, Initial Deformation 1180 ^{o}C, Spherical 1210 ^{o}C, Hemispherical 1220 ^{o}C and Flow 1230 ^{o}C. The Initial Deformation temperature is high for a lignite and indicates that slagging should be less than for other lignites.

2.4.1.3.6 Ash Composition

The Ash Composition is typical for lignite. It shows a high Iron and Calcium content, which indicates a potential for slagging and a high Sodium content, which indicates a propensity for fouling. These conditions are recognized and will need to be taken into account when designing the boiler for the power station.

2.4.1.3.7 Factors for Industrial Sales

The lignite is generally suitable for combustion in a wide range of applications. It will be easy to burn and because of its rank, the loss of carbon in ash should be low, leading to higher efficiency combustion.

In some applications such as cement manufacture, it may be necessary to dry the lignite before combustion.

2.4.1.3.8 Spontaneous Combustion

All lignites have a propensity for spontaneous combustion and this feature of them is well understood and can be taken into account during the design and manufacture of equipment for transport and use of the lignite.

The lignite may be transported by road or rail for considerable distances and this is done regularly in Poland and Germany where lignite is commonly used for the manufacture of cement and in other industrial applications. Care must be taken in the loading and storage of lignite to ensure that air influx is minimized and there is minimal build-up of heat.

2.5 Hydrogeology

Morphologically the area is dominated by aeolian sand dunes, trending northeast producing an undulating topography. The ground is gentle, with an elevation varies in-between 65-75m.

There are mainly three aquifers present:

- Top aquifer at the basis of the dune sand,

- Intermediate aquifer scattered as lenses and as varying thick horizons in the Sub-recent and Bara Formation,
- Footwall aquifer beneath the coal formation and the granite base.

2.5.1 Top aquifer

This aquifer stretches out all over the Thar Desert. In the Block VI area this aquifer shows a water column of up to five meters depending very much on the recharge. Due to the irregular basis of the Dune Sand and the small water column of few meters only, it is not possible to draw a reliable water table map. The water table is at about 10 to 12 m above sea level.

Permeability is around $3x10^{-5}$ m/s according to grain size. The water is frequently tapped in hand dug wells down to the bottom of the dune sand and used for public water supply in the desert villages.

2.5.2 Intermediate aquifers

Permeable strata can be found in the Sub-recent formation and in the lignite sequence of the Bara formation. In the Sub-recent formation these sandy materials are often very salty so that the permeability there varies between 10^{-5} to 10^{-7} m/s. The strata with the higher permeability are only some meters thick and not consistent as they are of fluviatile origin and not laterally extending like marine sands. Recharge of these aquifers is likely to be poor as clayey/salty strata confine them.

In the underlying Bara Formation (inter lignite and top of lignite) some sandstones are present. These sandstones are less clayey/salty than most of the Sub-recent sandstone horizons and may show permeabilities of about 10^{-5} to $5x10^{-5}$ m/s. These Intermediate Bara Formation aquifers are not continuous throughout the Block VI area. Recharge of these aquifers is also poor.

2.5.3 Deep aquifer

This aquifer is the most dominant aquifer in terms of thickness, lateral extension and permeability. The top of this aquifer starts some meters below the lignite sequence. Thickness of this aquifer in the exploration area is around fifty to sixty meters. This bottom aquifer is of special importance when opening the mine, as it has to be depressurised, by pumping from wells drilled into the aquifer, in advance of reaching to mining depth of about 100 meters. Otherwise ground breaking would occur followed by flooding of the mine and collapse of the slope system. Therefore it is necessary to know the horizontal extent of this aquifer and the thickness as well as transmissivity data. The aquifer is also not homogeneous with respect to permeability as the sandstone is often replaced by sandy siltstone. Recharge of the aquifer may be from North-East beyond the Indian border.

2.5.4 Evaluation of Pumping Tests

Pumping tests were performed in the two test wells RE-51 and RE-52 (RWE 2004). The tests were performed at constant pumping rates over a period of 24 hours for each well. The draw-down records were taken at minutes and maximum one hour's interval. The pump used for the tests was a 6 inch submersible motor Grundfos SP 30 pump with a capacity of 14 litres at about 40 m delivery height.

The discharge rate was measured with a flow meter and in addition with a 220 I drum.

2.5.4.1 Pumping test RE-51-W - Observation piezometer RE-12P

The piezometer has a distance of 25 meter from the well. According to COOPER and JACOB the transmissivity T of the aquifer is calculated by: $T=1.9x10^{-3}m^2/s$.

The average permeability value K of the aquifer can be calculated by: $K=6.3x10^{-5}m/s$.

The storage coefficient S is calculated by: $S=2.9x10^{-4}$.

2.5.4.2 Pumping test RE-52-W - Observation piezometer RE-22P

The piezometer has a distance of 30 meters from the well. According to COOPER and JACOB the transmissivity T of the aquifer is calculated by: $T=7.9x10^{-3}m^2/s$.

The average permeability value K results to: $K=1.3x10^{-4}m/s$.

Storage coefficient: $S=2.7x10^{-3}$.

If the results of both pumping tests are compared it can be stated that the aquifer characteristics are quite different as the transmissivity values differ by a magnitude of around four. Therefore such pumping tests can only give transmissivity values for rather restricted areas. The differences in terms of transmissivity is due to the varying grain sizes of the aquifer materials

In general the sand formation can be classified as medium to coarse. The fine sand portion is in the range of 10% only. It is however not known how many fines of the samples were washed away as these samples were taken from the borehole mud and subsequently cleaned by careful washing.

According to Hazen the permeability values of sands can be calculated by the following equation: $K=1.82x10^{-4}m/s$. This value corresponds very well to the pump test result of $K=1.3x10^{-4}m/s$.

2.5.5 Groundwater quality

Groundwater qualities are saline in all aquifers with dominant sodium chloride contents. TDS is around 7500 in the base aquifer of the exploration area and 4500 in the top aquifer at the village of Varvai. The top aquifer at the village of Tilvai shows extreme high values in the order of up to 11.000/14.000 TDS.

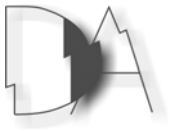
2.5.5.1 Top aquifer

The groundwater in the top aquifer from hand dug wells in the villages of Khario, Tilvai and Varvai show quite different water qualities. The groundwater in Varvai is moderately high in total dissolved solids of around 4500. It is astonishing that the TDS value in Tilvai wells of the same formation about 4 km south of Varvai is more than double in value - around 11000 to 15000. This may be due to the fact that especially in that area the water table has declined considerably during the drought years as reported by villagers. Also the Khario top aquifer shows rather different TDS values of around 4400 and 8400 (Table 11).

The main constituents of the water are chlorine and sodium, followed by bicarbonates and sulphate. The nitrate values are high obviously due to seepage of household waste waters in the village areas.

2.5.5.2 Deep aquifer

The deep aquifer water tested in the two “RE” wells and in the Khario deep well is high in TDS (7500-10200). The main constituents there are also chlorine and sodium (Table 11). This water has also high nitrate values, which may be derived from decomposition processes of the lignite.



Parameters	Unit	Deep Aquifer			Top Aquifer						Indus Water
		RE51	RE52	Khario	Varvai	Varvai	Tilvai	Tilvai	Khario	Khario	
pH value		7,21	7,20	7,51	8,50	8,30	8,32	8,17	8,13	8,22	8,06
Conductivit	uS/cm	10,93	10,86	14,75	6,18	6,840	15,70	2120	11,99	7,680	450
Total Dissolved	T.DS	7660	7500	10200	4220	4790	11114	14800	8390	4464	310
Total	$CaCO_3$	860	820	1640	180	228	344	506	740	175	130
Calcium	Ca-mg/l	152	174	206	8,0	14,00	40	60	88	10	26
Magnesium	Mg	138	112	350	32	68,00	75	104	151	40	16
Sodium	Na-mg/l	1620	1702	2182	1012	1440	2620	3520	1785	1284	26
Potassium	K-mg/l	26	27	80	40	60	40	70	40	53	6
Iron soluble	Fe-	0,5	0,06	0,16	0,1	0,05	0,04	0,04	0,02	0,07	0,14
Manganese	Mn-	0,35	Trace	0,25	0,38	Trace	0,65	1,28	0,12	Traces	0,02
Chloride	CL-	2760	2680	3380	1580	2162	3380	4680	2620	2190	18
Bicarbonate	HCO_3	240	250	348	456	480	580	768	216	444	120
Nitrate	NO_3-	44	54	178	52	52	20	35	155	58	4,00
Sulphate	S<V'	210	180	450	180	278	488	608	430	240	40

Table 11: Groundwater Quality

2.6 Geotechnical Properties

Rock samples were collected from the fully cored boreholes SCE-4, SCE-6 and SCE-7. The rock samples were selected to determine the density and rock strength of the strata above the main lignite seam and of the floor strata of the main lignite seam.

The rock samples were sent to Strata Surveys Ltd, U.K. laboratory for testing.

Table 12, Table 13 and Table 14 give the values for the density, point load strength and unconfined compressive strength, respectively of the selected rock samples.

The rock density values are typical for the lithologies represented.

The point load strength index tests indicate that the mudstone in the roof of the main lignite seam is moderately weak. The siltstone samples are weak to very weak, and the sandstone samples are also weak, including the sandstone forming the floor of the main lignite seam.

The unconfined compressive strength values of the sandstone samples ranged from weak to very weak.

Laboratory Test Results Density - Linear Measurement Method - BS1377:1990:part2

BH	Sample Type No.	Sample Depth Top m	Sample Depth Bottom m	Description	Bulk Density Mg/m³	Dry Density Mg/m³	Moisture Contenet	Specimen Diameter mm	Specimen Length mm
DGA 1	C			dark grey MUDSTONE	1.353	1.127	20	62	73
DGA 2	C			grey silty fine grained weathered SANDSTONE	2.209	1.944	14	62	69
DGA 3	C			dark grey MUDSTONE	1.865	1.421	31	62	63
DGA 4	C			dark grey SILTSTONE	1.454	1.050	39	62	27
DGA 5	C			light brown fine to medium grained SANDSTONE	1.567	1.527	2.6	62	81
DGA 6	C			light brown grey SILTSTONE	1.225	0.900	36	62	81
DGA 7	C			grey brown mottled fine to medium grained SANDSTONE	1.862	1.694	9.9	62	63

Table 12: Rock Density test Results.

Borehole No	Depth (m)	Description	Type	Orientation	W (mm)	D (mm)	P (kN)	De^2 (mm^2)	De (mm)	I_s	F	$I_{s(50)}$ MN/m^2
DGA 1		1	d	//	30	62	0.50	3844.00	62.00	0.130	1.10	0.14
DGA 1		1	a	⊥	62	44	1.10	2728.00	52.23	0.403	1.02	0.41
DGA 1		1	d	//	32	62	0.22	3844.00	62.00	0.057	1.10	0.06
DGA 1		1	a	⊥	62	70	1.20	4340.00	65.88	0.276	1.13	0.31
DGA 2		6	d	//	42	62	0.03	3844.00	62.00	0.008	1.10	0.01
DGA 2		6	a	⊥	62	62	0.10	4894.33	69.96	0.020	1.16	0.02
DGA 3		2	a	⊥	62	61	0.50	4815.39	69.39	0.104	1.16	0.12
DGA 3		2	d	//	63	62	0.50	3844.00	62.00	0.130	1.10	0.14
DGA 3		2	d	//	48	62	0.42	3844.00	62.00	0.109	1.10	0.12
DGA 3		2	a	⊥	62	53	0.63	4183.87	64.68	0.151	1.12	0.17
DGA 4		1	a	⊥	62	26	0.22	2052.46	45.30	0.107	0.96	0.10
DGA 4		1	d	//	32	62	0.03	3844.00	62.00	0.008	1.10	0.01
DGA 5		3	d	//	34	62	0.10	3844.00	62.00	0.026	1.10	0.03
DGA 5		3	a	⊥	62	50	0.16	3100.00	55.68	0.052	1.05	0.05
DGA 5		3	a	⊥	62	27	0.03	1674.00	40.91	0.018	0.91	0.02
DGA 6		4	d	//	35	62	0.25	3844.00	62.00	0.065	1.10	0.07
DGA 6		4	a	⊥	62	63	0.38	3906.00	62.50	0.097	1.11	0.11
DGA 6		4	a	⊥	62	32	0.50	1984.00	44.54	0.252	0.95	0.24
DGA 7		5	d	//	30	62	0.22	3844.00	62.00	0.057	1.10	0.06
DGA 7		5	a	⊥	62	37	0.25	2294.00	47.90	0.109	0.98	0.11
DGA 7		5	a	⊥	62	17	0.22	1054.00	32.47	0.209	0.82	0.17
DGA 7		5	a	⊥	62	33	0.20	2046.00	45.23	0.098	0.96	0.09

Mean $I_{s(50)}$ MN/m^2 for Description 1 0.28
Mean $I_{s(50)}$ MN/m^2 for Description 2 0.06
Mean $I_{s(50)}$ MN/m^2 for Description 3 0.11
Mean $I_{s(50)}$ MN/m^2 for Description 4 0.03
Mean $I_{s(50)}$ MN/m^2 for Description 5 0.06
Mean $I_{s(50)}$ MN/m^2 for Description 6 0.13

Description 1 : Moderately weak dark grey MUDSTONE

Description 2 : Weak dark grey SILTSTONE

Description 3 : Weak light brown fine to medium grained SANDSTONE

Description 4 : Very Weak light brown grey SILTSTONE

Description 5 : Weak grey brown mottled fine to medium grained SANDSTONE

Description 6 : Weak grey silty fine grained weathered SANDSTONE

a = axial
d = diametrical
il = irregular lump

// = parallel
⊥ = perpendicular

	$I_{s(50)}$ MN/m^2	U.C.S. MN/m^2
Very Weak	< 0.05	<1.25
Weak	0.05-0.20	1.25-5
Moderately Weak	0.20-0.50	5-12.5
Moderately Strong	0.50 - 2.00	12.5-50
Strong	2.00 - 4.50	50-100
Very Strong	4.50 - 9.00	100-200
Extremely Strong	9.00 +	>200

Table 13: Point Load Test Results.

					Unconfined Compression							
Borehole Number	Sample Type No.	Sample Depth Top m	Sample Depth Bottom m	Description	Bulk Density Mg/m³	Dry Density Mg/m³	Moisture Content %	Specimen Diameter mm	Specimen Length mm	Volume cm³		Load at Failure kN	Compressive Strength Mpa
DG 8	Core			very weak light grey white fine to medium grained SANDSTONE	2.186	1.917	14	62	124	374.17		0.9	0.3
DGA 9	Core			weak light brown fine to medium grained SANDSTONE	2.306	2.098	9.9	62	124	374.17		4.2	1.4
DGA 10	core			very weak light brown reddish brown fine to medium grained SANDSTONE	2.085	1.845	13	62	124	374.17		2.2	0.7
DGA 11	core			very weak light brown grey silty CLAY	2.047	1.749	17	62	124	374.17		2.2	0.7

Table 14: Unconfined Compressive Strength Test Results.

This brief analysis of the geotechnical properties of selected sections of the strata likely to be encountered in the open pit mine suggests that the overburden will be rippable and not require blasting. The batter angles for the pit in such weak strata will probably be low (24° given in the mining section above).

Further testing of the geotechnical properties of the strata will be required during the feasibility study for the mine.

2.7 Current Exploration

2.7.1 Geology

An integral part of the next stage, i.e. the full feasibility and definitive mine study, is to undertake pre-production drilling to more accurately define the depth and location of the lignite and other geological features for mine planning purposes. To this end, programme of drilling, logging and sampling was initiated in September 2010. The Deep Rock Drilling PVT Ltd, a Pakistan based drilling company, was engaged to drill 27 geological boreholes, these comprise four fully cored boreholes, fourteen part cored boreholes and nine open holes (see Figure 11). Geoscience Associates of Lahore undertook the geophysical logging of all the boreholes. All boreholes and water wells have been geophysically logged using Gamma, Long and Short Spaced Density, Spontaneous Potential (SP) and Single Point Resistance (SPR) logs. Rock core samples were collected from the fully and part cored boreholes for geotechnical testing at the Structural Soils Laboratory in Bristol, UK.

Cored lignite samples have been selected and sent to Bahria University Laboratories in Karachi for quality analysis. Additional rock core samples have been collected for geochemical analysis at Scientifics Laboratory, UK. All testing to be done to ASTM standards.

The results of the drilling programme are shown in Table 15. All borehole indicate a cumulative lignite thickness of 16-39m, with a continuous lignite section ranging from 5.6m to 22.9m. Up to 13 discreet lignite horizons have been recorded.

Some 500 selected ground points, borehole locations and water well locations are being surveyed for position and elevation, in order to give a realistic topographic profile and datum points for borehole depths.

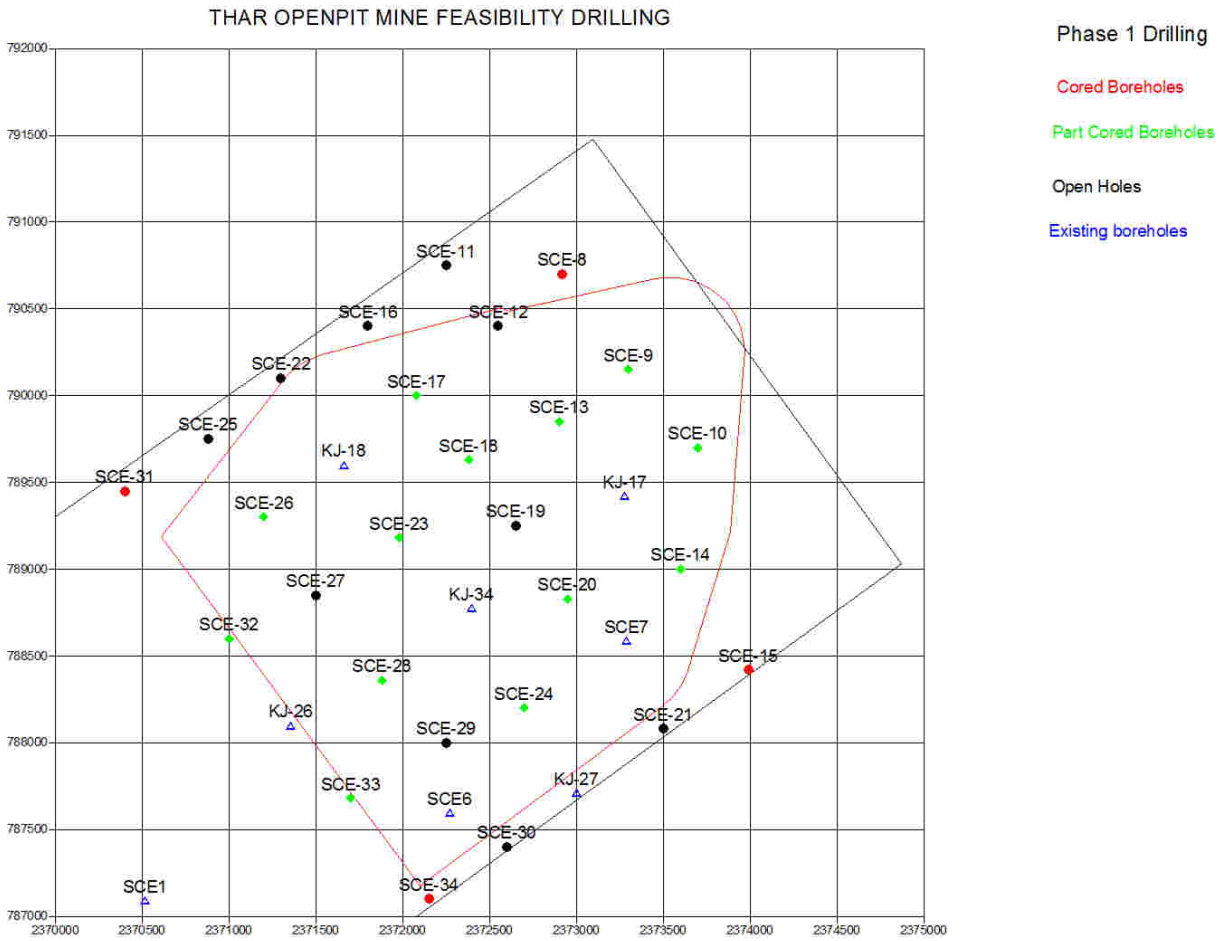


Figure 11 Phase I mine area feasibility drilling 2010/2011.

Summary of Drilling Programme- Phase 1						
S.No.	Bore Hole	Total Depth(m)	Cumulative Coal(m)	Seams	Main Seam(m)	Bara Contact(m)
1	SCE-17	229.69	19.78	7	7.67	122.04
2	SCE-18	226.57	22.94	7	11.44	124.66
3	SCE-13	226.59	23.89	9	9.48	133.68
4	SCE-10	226.67	26.16	13	6.27	133.56
5	SCE-34 (GT)	220.67	24.46	11	12.18	138.43
6	SCE-20	226.74	28.86	8	19.49	129.69
7	SCE-26	226.74	24.12	12	6.72	123.29
8	SCE-14	227.30	27.25	8	19.73	135.24
9	SCE-19(NC)	226.10	35.90	9	22.97	135.00
10	SCE-25(NC)	226.00	31.75	10	8.09	124.00
11	SCE-8 (GT)	228.60	18.69	7	12.54	130.13
12	SCE-29(NC)	229.21	24.41	12	8.97	137.61
13	SCE-27(NC)	229.21	22.16	10	12.38	146.30
14	SCE-22(NC)	228.90	21.62	11	5.62	131.06
15	SCE-28	228.60	31.81	11	18.50	145.83
16	SCE-21(NC)	229.21	31.21	12	14.36	140.21
17	SCE-15(GT)	229.64	21.31	5	15.74	144.19
18	SCE-11(NC)	229.21	18.49	9	9.06	131.10
19	SCE-31(GT)	229.29	16.9	12	3.02	121.19
20	SCE-30(NC)	229.21	28.89	12	18.72	155.45
21	SCE-16(NC)	229.21	39.76	8	19.25	128.02
22	SCE-23	228.6	25.02	9	8.59	127.36
23	SCE-09	229.67	20.71	9	12.78	131.82
24	SCE-12	230.00	16.89	8	8.72	122.68
25	SCE-24	229.67	26.01	9	12.45	129.34
26	SCE-32	220.95	26.39	10	11.96	132.55
27	SCE-33	235.74	30.92	11	19.04	152.63

*GT= GeoTechnical Borehole *NC= Non Core Borehole

Table 15: Summary of 2010/2011 drilling programme in Phase I mine area.

2.7.2 Hydrogeology

Geoscience Associates of Lahore were engaged to drill and construct four test wells and four observation wells, sited in the designated Phase I mine area. These wells were tested to determine the hydrogeological characteristics of the upper, middle and lower aquifers, with special reference to the volumes of water required to be pumped out to allow mining, and to variations in groundwater flow within the designated mine area. The hydrogeological programme was devised and overseen by Aquaterra of Australia, who will evaluate the well tests and construct the hydrogeological model for the Phase I mine area and immediate surrounding area. Samples of the groundwater have been sent to Bahria University Laboratory in Karachi for chemical analysis.

2.8 Meteorological Conditions in Tharparkar area

Using data provided by the Government of Pakistan Meteorological Department (Faisal 2004), for the Badin and Thar areas over the last ten years, the following statistics are relevant to the probable climate to be encountered in the Block VI area.

Average daily speed of wind in Chhor for the period between 1997 and 2006 per months (0000 UTC) are given in Table 16 and shown in Figure 12, whereas the wind resistance rose defined by measuring in 0000 UTC (Pakistan Meteorological Department), is shown in Figure 13.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997	2.1	3.4	2.8	3.9	7.1	6.4	7.7	5.5	5.3	3.0	1.6	1.3
1998	0.4	1.4	0.6	3.8	4.5	7.3	9.6	9.2	3.4	1.9	1.3	1.2
1999	1.7	2.1	2.4	4.7	8.8	9.4	10.3	10.6	6.9	0.6	0.2	1.9
2000	2.1	1.7	3.1	6.8	9.2	11.7	7.2	6.8	4.2	2.3	1.6	1.5
2001	1,6	2.4	2.8	3.5	9.7	10.3	7.4	7.6	3.7	1.2	2.1	1.6
2002	2.5	2.1	2.2	3.7	12.5	7.9	12.7	7.3	4.3	1.2	1.4	1.8
2003	1.9	1.9	2.1	3.5	7.2	10.7	3.8	6.3	2.1	0.9	0.5	0.5
2004	0.9	1.5	2.0	2.4	6.7	9.0	7.2	7.1	4.1	2.1	0.7	1.7
2005	1.7	2.1	1.5	2.5	4.0	7.9	9.8	7.4	2.3	0.8	0.9	2.1
2006	1.7	2.1	1.7	3.7	8.1	8.4	7.4	3.7	2.7	/	/	0.6

*With speed at *0000 UTC (knots-nautical mile per hour=1,852 km/h)

Table 16: Average daily speed of wind per months measured in 0000 UTC (knots)

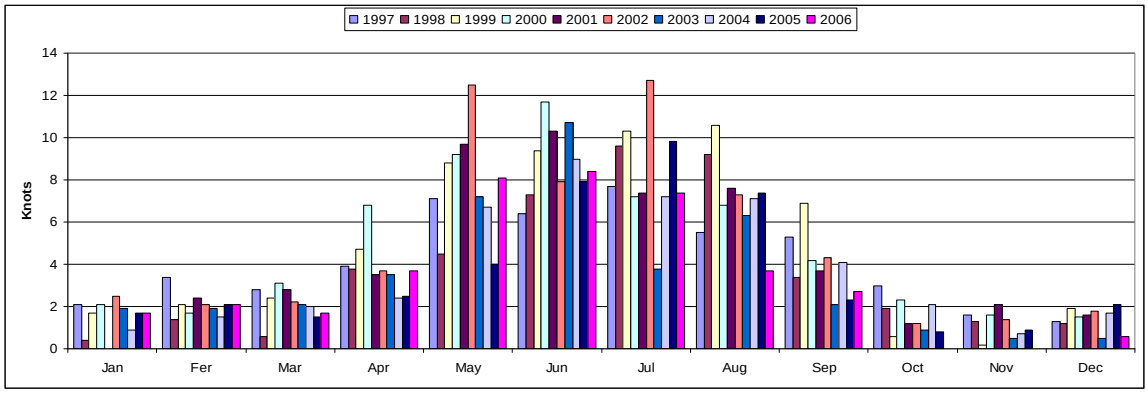


Figure 12: Chart of average daily speed of wind per months for the period 1997-2006 (0000 UTC)

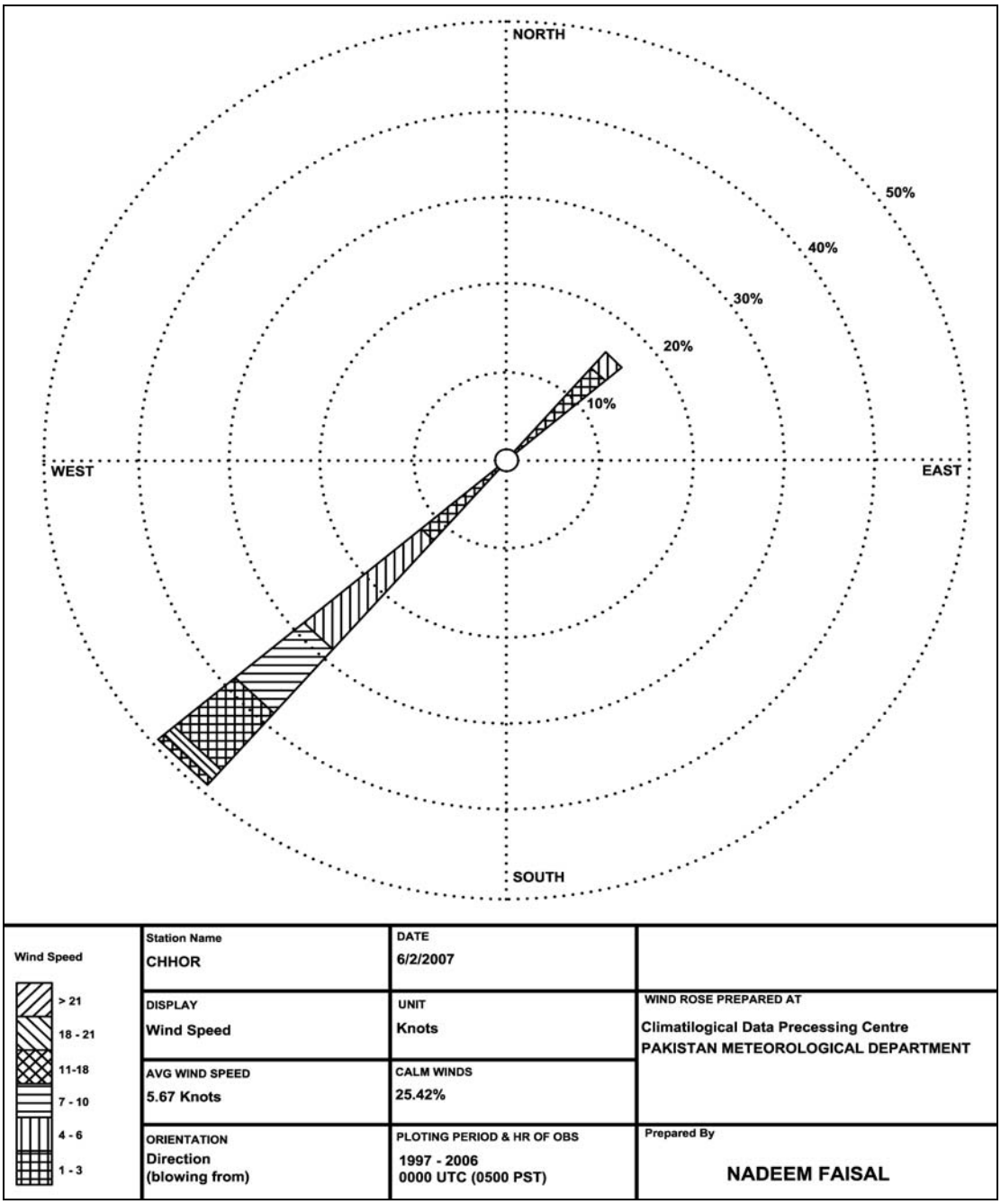


Figure 13: Wind resistance rose defined for Chhor by measuring in 0000 UTC

Minimum average daily speed of 0.2 knots according to measuring in 0000 UTC was recorded in November 1999, whereas maximum average daily speed of wind of 12.7 knots for the measuring at the same period was recorded in July 2002. Wind resistance rose defined for the Chhor area measured in 1200 UTC (Pakistan Meteorological Department), is shown in Figure 13, whereas the average daily speed of wind for the period 1997 till 2006 per month is given in Table 17 and shown in Figure 15.

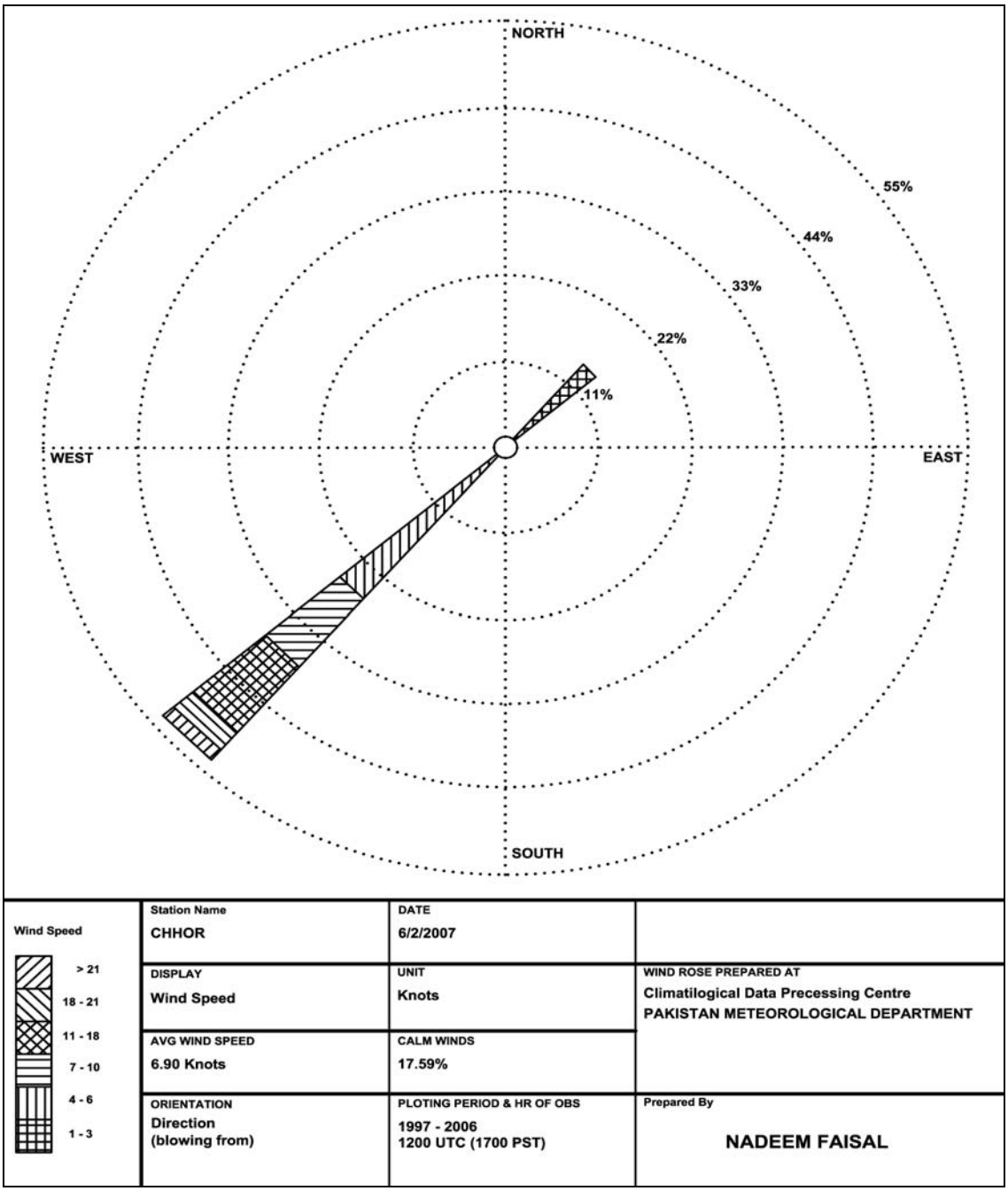


Figure 14: Wind resistance rose for the place of Chhor measuring in 1200 UTC

Minimum average daily speed of wind of 0.6 knots measured in 1200 UTC was recorded in December 2003, whereas the maximum average daily speed of wind of 23.6 knots was recorded in the same period in May 1999. It is evident that the dominant wind direction is from the South-West.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997	4.1	4.5	4.4	7.0	9.9	7.9	9.0	7.5	5.7	2.9	3.2	3.8
1998	5.1	5.5	4.7	6.5	8.8	9.2	10.7	11.2	4.5	2.9	2.2	1.6
1999	2.9	3.5	5.5	7.3	23.6	13.2	14.9	13.1	11.6	3.7	3.2	1.6
2000	4.2	5.9	5.5	10.1	17.5	16.9	10.2	10.0	8.9	5.4	3.6	4.1
2001	4.9	5.7	4.5	9.3	14.5	14.1	11.5	12.0	8.1	4.3	3.0	3.1
2002	4.7	4.6	5.8	9.6	13.8	12.6	14.7	10.3	9.3	3.4	2.8	3.7
2003	3.1	5.7	4.4	5.3	9.5	11.5	7.6	8.6	9.7	2.0	1.7	0.6
2004	3.0	4.1	3.3	8.4	11.6	8.9	11.7	10.9	8.1	4.2	2.3	3.0
2005	4.4	4.3	7.2	7.1	10.2	11.5	12.8	12.5	5.1	4.7	2.7	4.5
2006	4.6	4.9	5.6	7.8	11.9	10.7	11.0	6.6	6.1	/	/	3.4

*With speed at *1200 UTC (knots - nautical mile per hour=1,852 km/h)

Table 17: Average daily speed of wind per months measured in 1200 UTC (knots)

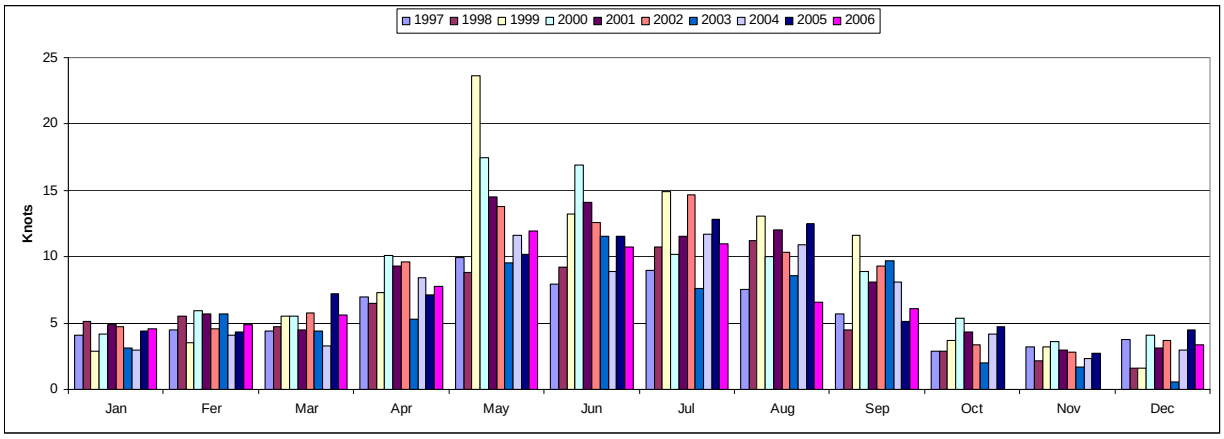


Figure 15: Chart of average daily speed of wind per months for the period 1997-2006 (1200UTC)

The highest wind speed recorded in 0000 UTC was achieved during the period May-August, whereas when measured in 1200 UTC the highest speeds are achieved in the period May-September. The height of rainfall recorded at rain stations in the places of Chhor (Table 18 and Figure 16) and Mithi (Table 19 and Figure 17) is taken as the reference value for the area of Tharparkar in Pakistan.

It is evident from Table 18 and Figure 16 that there is almost no rainfall in the Badin District during November and December, as well as in the period March-May, whereas the highest rainfall is recorded in the period June-September. Maximum daily height of rainfall (150.4 mm) in Badin was recorded in July 2003.

Table 18 shows that there is little or no rainfall in the Chhor area during the months November to May, with the heaviest rainfall in June to August. The maximum recorded rainfall was 197mm in May 1998 and 137.2mm in July 2003.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997	2.0	0.0	4.0	1.0	Trace	23.0	0.0	16.3	25.7	33.0	0.0	0.0
1998	0.0	11.6	9.3	0.0	197.2	6.1	23.3	52.3	25.1	44.6	0.0	0.0
1999	Trace	11.2	0	0.0	0.8	9.0	0.0	16.8	0.0	23.7	0.0	0.0
2000	0.0	Trace	0.0	0.0	0.0	0.0	32.8	14.0	0.0	0.0	0.0	0.0
2001	0.0	0.0	0.0	2.5	0.0	30.4	32.7	5.3	0.0	0.0	0.0	0.0
2002	0.0	0.0	0.0	Trace	0.0	2.3	0.0	0.3	0.0	0.0	3.0	0.0
2003	2.1	15.6	0.0	0.0	0.0	0.6	137.2	57.2	0.0	0.0	0.0	0.0
2004	0.8	0.0	0.0	0.0	1.8	13.0	0.0	28.8	5.1	57.4	0.0	4.2
2005	2.3	0.0	0.0	3.0	0.3	4.8	3.8	20.6	32.1	0.0	0.0	0.0
2006	0.0	0.0	11.8	0.0	0.0	1.8	32.0	141.2	75.1	1.4	0.0	2.7

TRACE - rainfall below 0.1 mm

Table 18: Maximum daily height of rainfall (mm) recorded in Chhor (1997-2006)

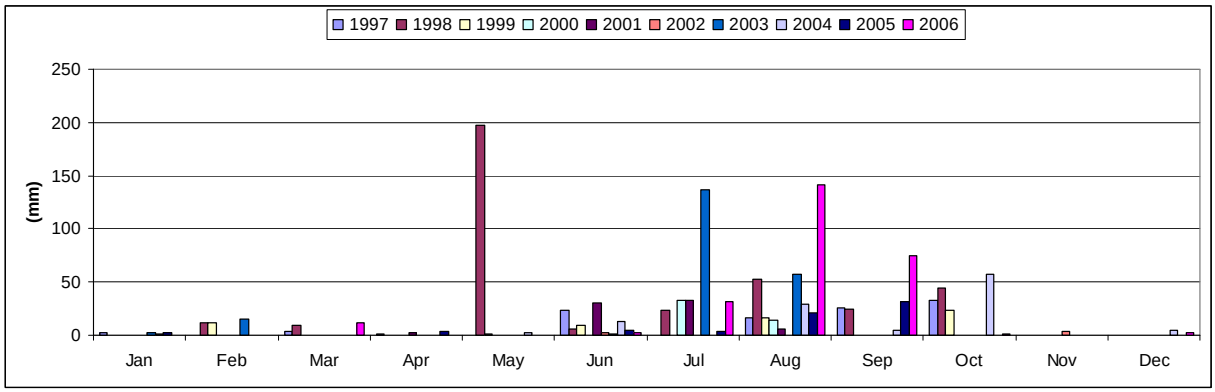


Figure 16: Maximum daily height of rainfall (mm) recorded in Chhor (1997-2006)

In the Mithi area, Table 19 and Figure 17 show again that there is little or no rainfall in the months of October to April, with moderate rainfall in May to September. An exception to this was a heavy rainfall figure of 174mm recorded during September 2006. Mithi has a semi-arid climate and these climatic conditions will compare closely with the expected climate conditions within the Block VI area of the Thar Coalfield. However, unseasonal heavy rainfall cannot be discounted, and therefore there is always a risk of periodic flooding within the open pit area.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004	Trace	0.0	0.0	0.0	0.7	14.0	0.0	40.0	1.1	59.0	0.0	0.0
2005	0.0	0.0	0.0	0.8	18.6	17.6	7.0	21.4	37.4	0.0	0.0	0.0
2006	0.0	0.0	6.2	0.0	0.0	24.8	38.2	82.0	174.0	0.0	0.0	1.0

Trace = rainfall below 0.1 mm

Table 19: Maximum daily height of rainfall (mm) recorded in Mithi (2004-2006)

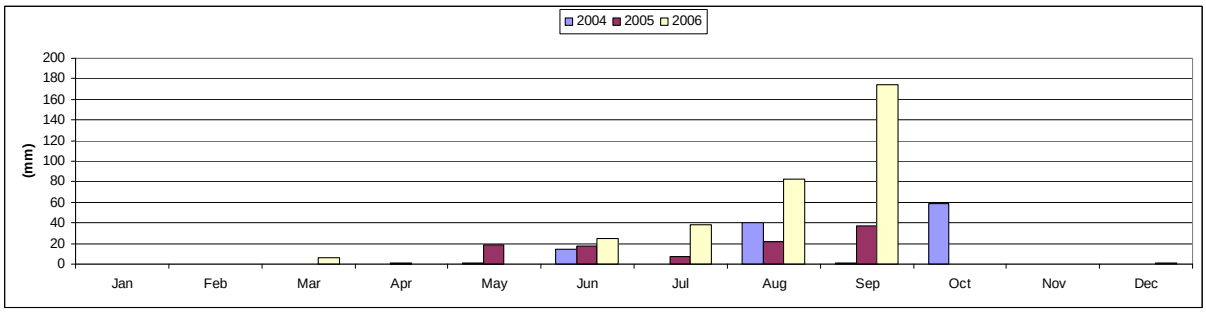


Figure 17: Maximum daily height of rainfall (mm) recorded in Mithi (2004-2006)

3 LIGNITE RESOURCES/RESERVES.

Dargo Associates assessment herein is according to the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC), which is widely accepted as a standard for reserve assessment intended for a prospectus for stock flotation on AIM and other stock markets.

The JORC Code states, "An **inferred mineral resource** is that part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits workings and drill holes which may be limited or of uncertain quality and reliability." Points of observation are >1,000m apart.

The JORC Code stipulates that for an **indicated mineral resource** the above parameters apply but to a reasonable level of confidence and may be further defined by applying loss factors to the tonnages due to geological and/or mining restrictions. Points of observation are <1,000m apart.

The JORC Code (2004) also stipulates that for a **measured resource** confidence level, the number, distribution and integrity of Points of Observation, which may be supported by interpretive data, are sufficient to allow a reliable estimate of average coal thickness, aerial extent, depth range, quality and in situ quantity. Points of Observation are usually <500m apart but the distance may be extended if there is sufficient technical justification to do so.

A **proven reserve** is the economically mineable part of a measured resource. It includes allowances for losses, which may occur when the lignite is mined. Appropriate assessments and studies have been carried out and include mining, financial, environmental, social and governmental factors. In addition, the JORC Guidelines for Coal (2003) have been implemented in stipulating that coal core recovery is >95% in the boreholes.

3.1 Thar Coalfield.

A GSP Report by Jaleel et al (2002), gives the geology and resources of four neighbouring blocks to Block VI in the Thar Coalfield. However, the only meaningful exploration carried out within the Block VI area was by CNGB who drilled 35 boreholes covering the whole area of Block VI (66.1 km^2).

In addition to these, seven extra boreholes were drilled to corroborate the Chinese results and to give further geological confidence in that part of Block VI considered most prospective for opencast mining.

The CNGB used 10 lignite seams for their resource calculations using cut off criteria of 0.7m thickness and 40% ash content. Their results were calculated on the basis of the Chinese Standards 'Geologic Exploration Standard of Coal Resources' and 'Classification of Solid Mineral Resources/Reserves'. CNGB quote a total in situ lignite reserve of 1,655 Mt, overburden of 11,048Mm^3, and an overall stripping ratio of 7.6:1 bcm/t.

The Bara Formation lies 140-160m below surface and contains a number of seams of lignite. In this study, only seams with thicknesses greater than 0.45m are included in the resources/reserves calculations. The specific gravity (or relative density) of the lignite is given a value of 1.2 tonnes per m^3, this value is the same as that used by CNGB.

All coals present in the Bara formation above and including the main 2.7 lignite seam and which meet the above criteria, are included in the resources/reserves calculations.

Those areas considered are the whole Block VI area, the total prospective mine area, and the Phase I and Phase II open pit mine areas. Figure 18, Figure 19 and Figure 20 show the lignite thickness, overburden thickness and stripping ratio plans for the whole of Block VI and for the prospective mine area. These have been created using the CNGB and DRD drilling results using *Surfer 8* software.

After 2008 and prior to 2010 drilling, the Block VI area had an even spread of 42 boreholes with a closer concentration in the prospective mining area. All boreholes have been geophysically logged and all have coal quality data. The geology is simple with no known dislocations. This gives a high level of confidence as to the presence and quantity of lignite, and its thickness distribution, overburden thickness and stripping ratio.

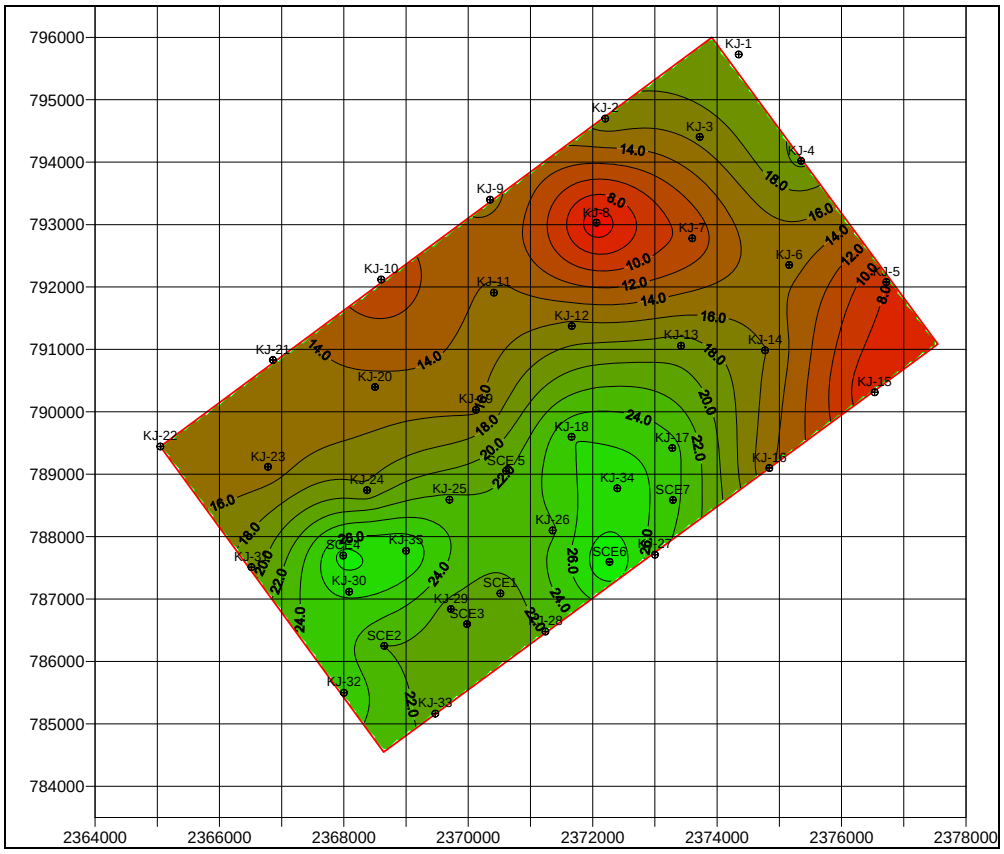


Figure 18: Thar Coalfield Total Block VI Lignite Thickness

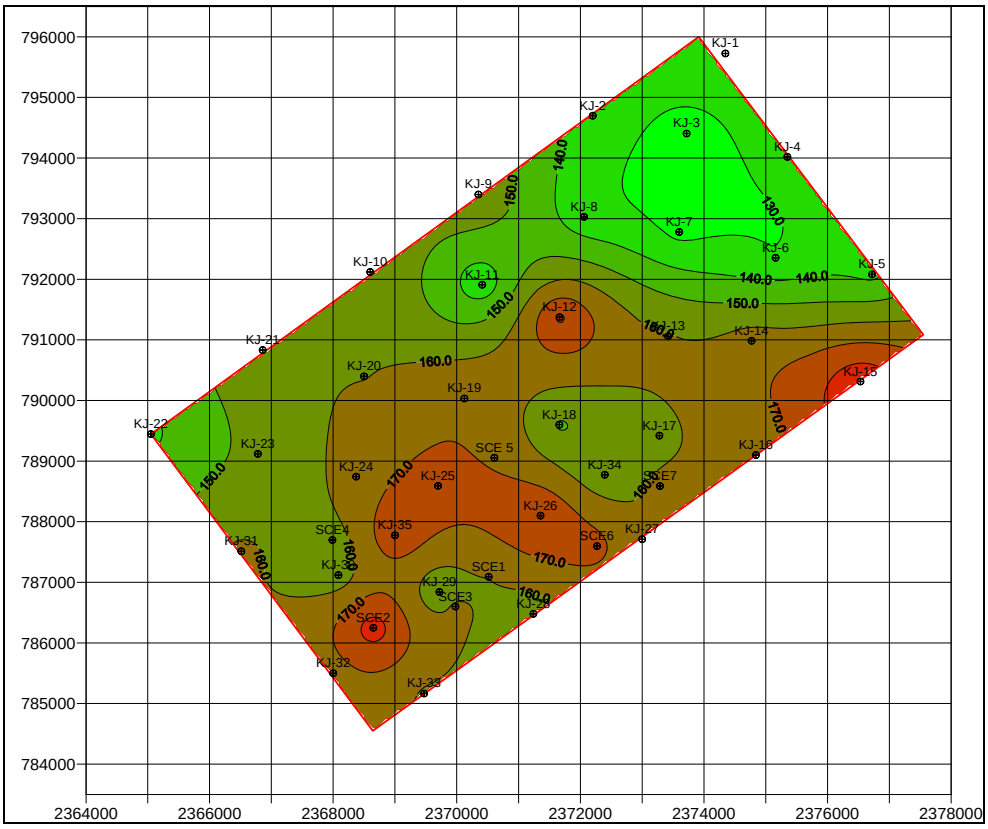


Figure 19: Thar Coalfield Total Block VI Overburden Thickness

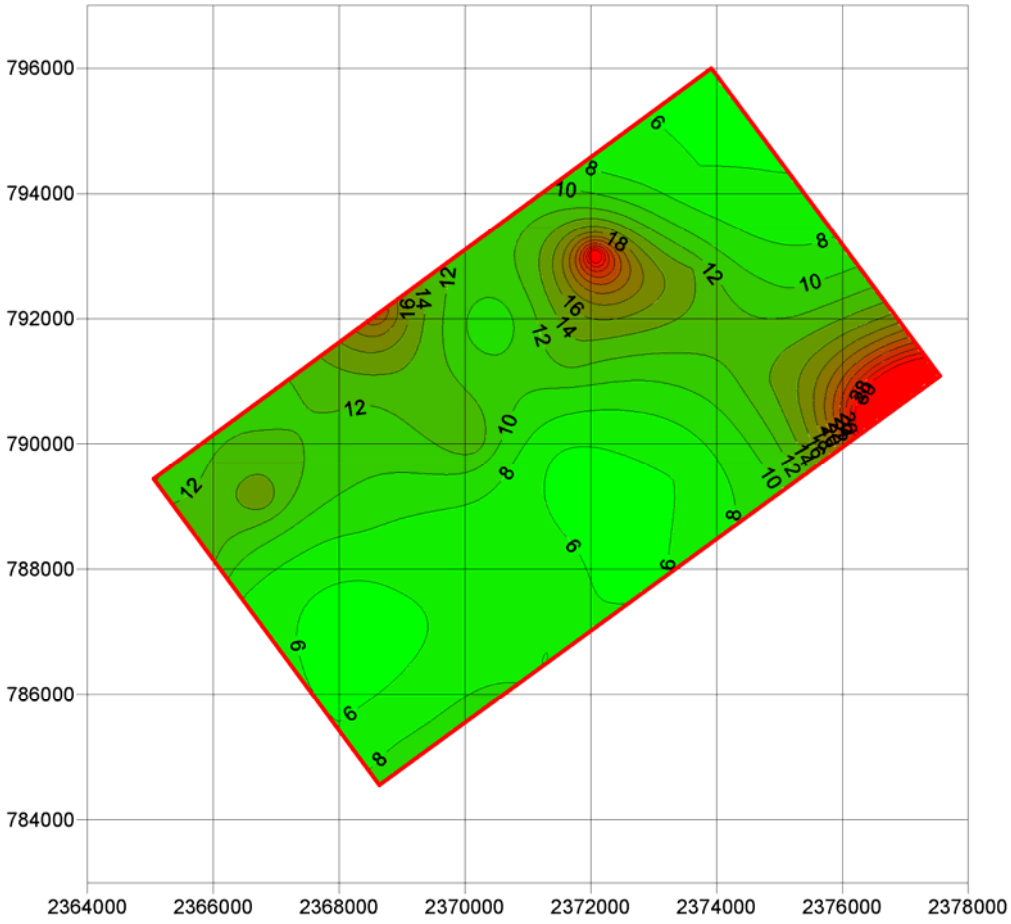


Figure 20: Thar Coalfield Block VI Stripping Ratio

3.1.1 Total Block VI Area.

Using the above criteria and applied to all the CNGB and Oracle coalfields' boreholes using *Surfer 8* software, the total coal resources present in the total Block VI area is 1,423 Mt, the total overburden is 10,200 Mm^3 and the average stripping ratio (SR) is 7.17:1 bcm/t (Table 20). These figures compare favourably with the CNGB calculations given above.

From the distribution of points of observation, Fig.18 shows the thickest accumulations of lignite are present in the south and south-western parts of Block VI, where total lignite thicknesses of 20-28m are present.

Fig.19 indicates overburden thickness values for the whole Block VI area, these are higher in the southwest, i.e.160-170m, and less than 150m in the northern part of the Block, the presence of only thin lignite development in this northern part of Block VI makes this part of the block unattractive for opencast mining.

It can be seen in Fig.20 that the more attractive stripping ratios are present in the south and southwest areas of Block VI, ranging from >5:1 to <7:1 bcm/t.

In the Block VI area as a whole, the separation of the points of observation in the areas not designated for mine development (i.e. Phase I & II areas), are seen to be >1,000m apart.

These would normally be considered as indicated resources but because of the simple geological model which gives an increased level of confidence and because of recent infill drilling in the designated mining areas, it has been considered that the figure of 1,423 Mt are classified under the JORC Code as **measured resources**.

3.1.2 Prospective Mine Area.

Within the Block VI area, the most prospective area can be seen to be the south central and south west part of the block (as shown in Figure 18). Figure 21 shows this area to have the thickest development of the main 2-7 lignite seam (20-28m) and Figure 23 shows this area to have the most favourable stripping ratios of 5:1 to 7:1 bcm/t. Overburden thicknesses are shown in Figure 22 and range from 150-170m.

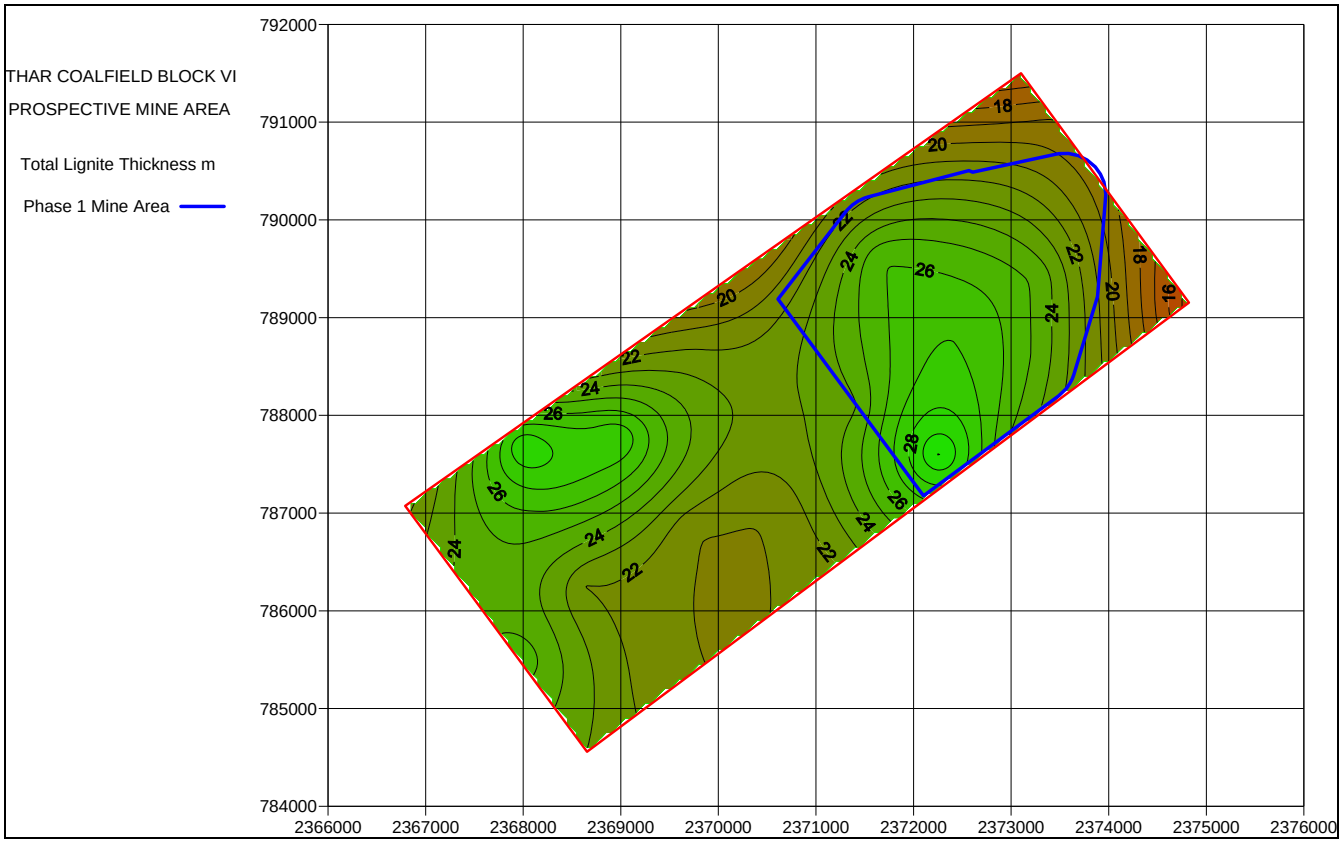


Figure 21: Thar Coalfield Block VI Prospective Mine Area, Total Lignite Thickness

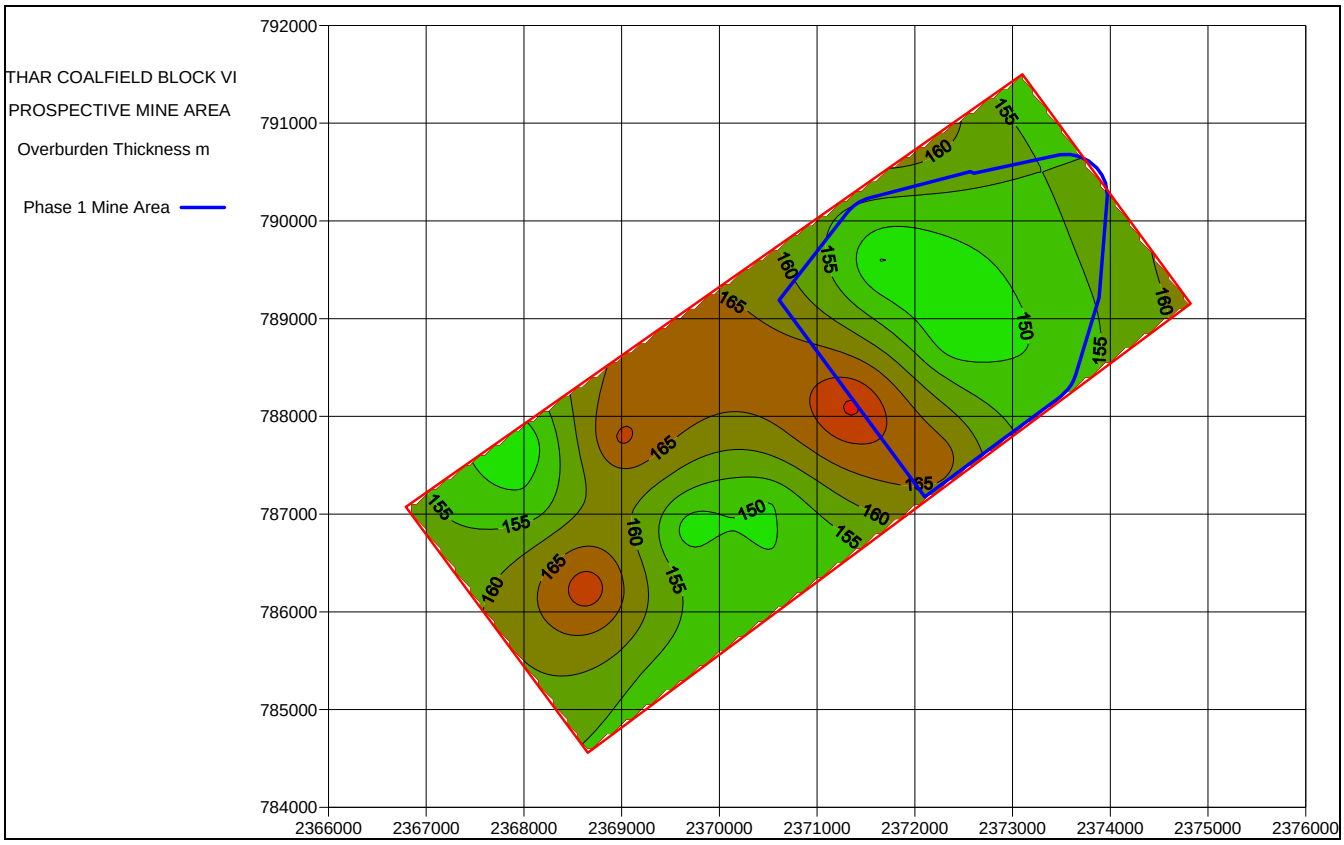


Figure 22: Thar Coalfield Block VI Prospective Mine Area, Overburden Thickness

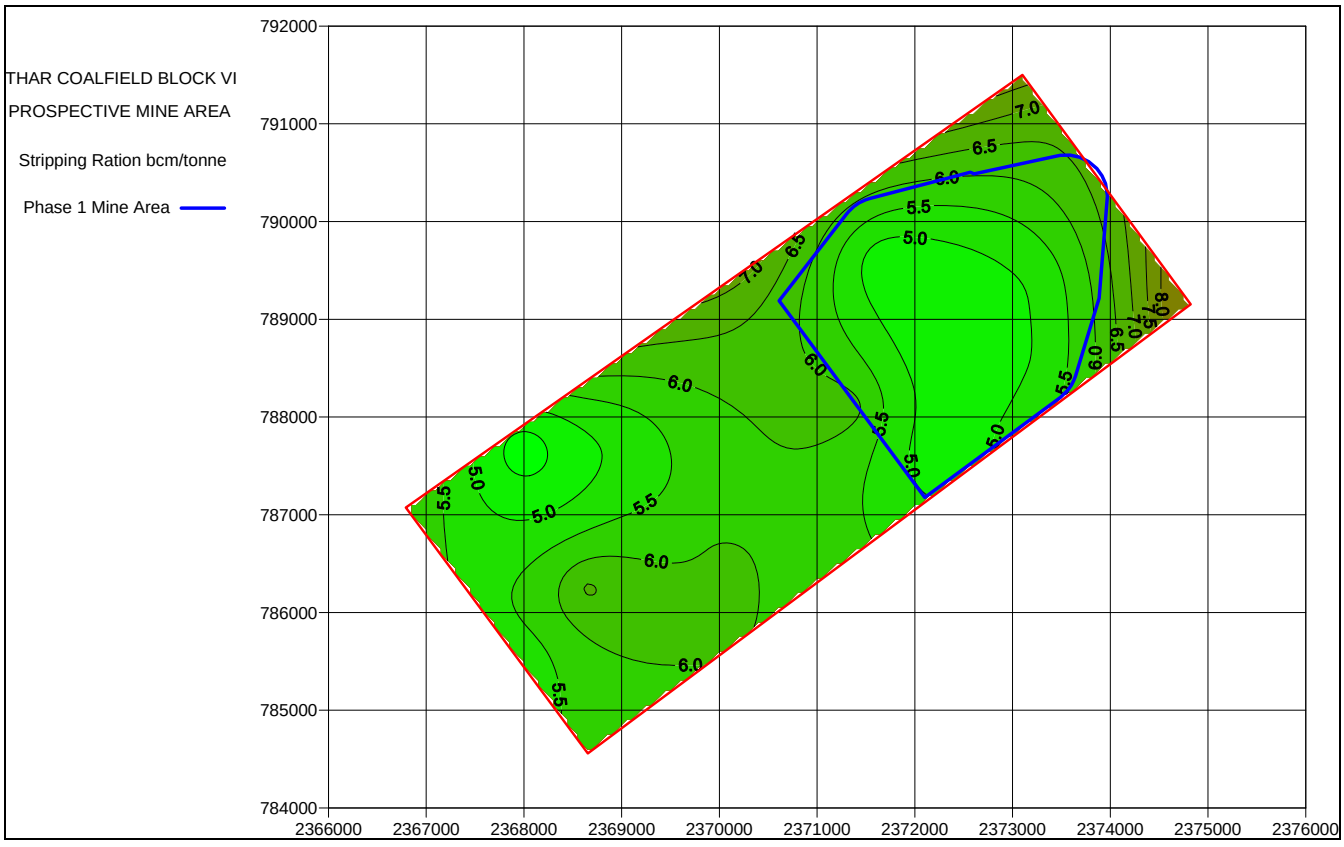


Figure 23: Thar Coalfield Block VI Prospective Mine Area Stripping Ratio

Using the same criteria as for Block VI as a whole, the calculated **measured resources** of lignite within the prospective mine area are 653 Mt. With an overburden volume of 3,673 Mm^3. This gives a general stripping ratio of 5.62:1 bcm/t.

In order to refine the resource classification, account has to be taken of mining losses. In the mine area, there will be a loss of resources due to the configuration of the opencast pit in the form of batter slopes, which will form the sides of the excavation. A batter slope angle of 24° has been used for this study, which further reduces the mine area, this is outlined in Figure 24.

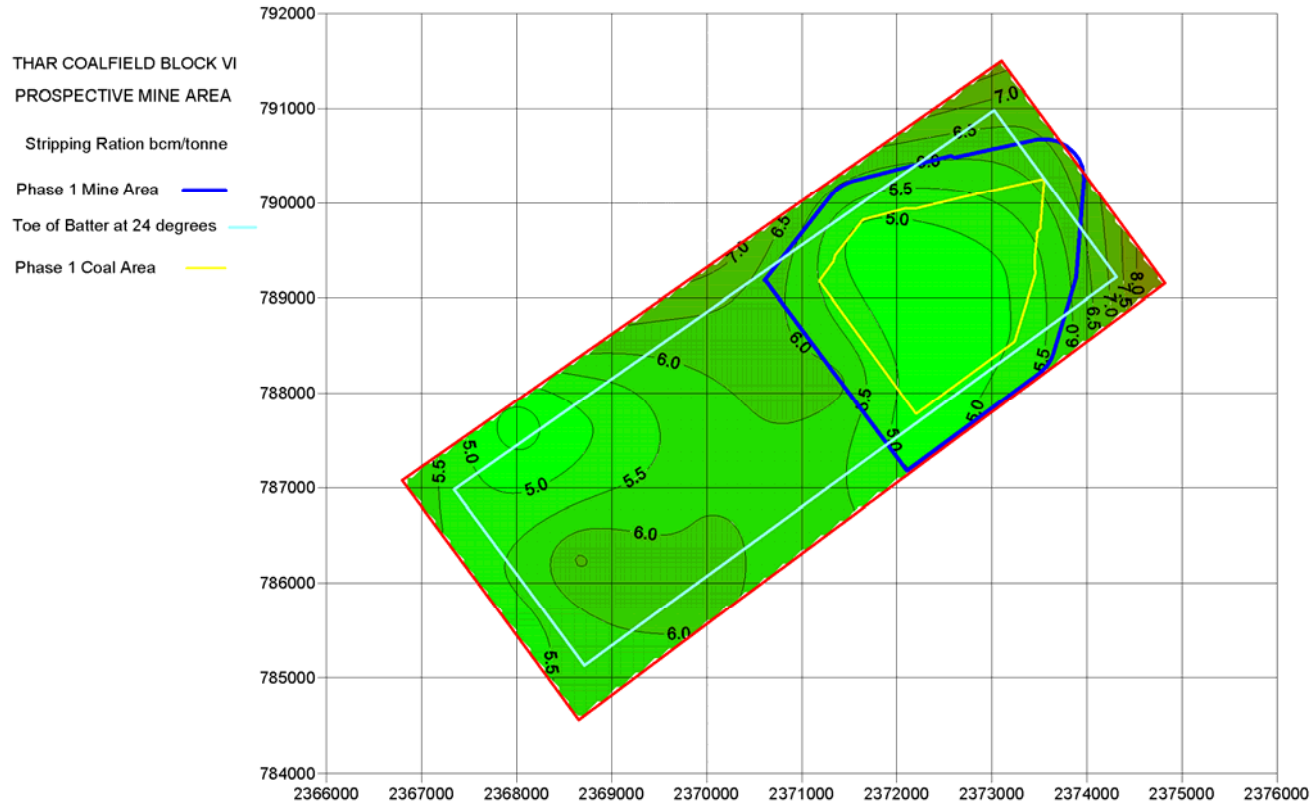


Figure 24: Thar Coalfield Block VI Prospective Mining Areas

To more accurately determine the extractable reserves from the prospective mine area, separate calculations have been made for the Phase I and Phase II mine areas within the total prospective mine area.

3.1.3 Phase I Open Pit Area.

In order to commence exploitation of the designated mine area, an initial excavation has been designed and will begin at the north eastern end of the mine area (Figure 24).

Such an excavation will require the removal of overburden down to the main coal seam level, and will result in a greater amount of overburden being removed than will normally take place once the mine configuration is established.

The area envisaged for the Phase I open pit is outlined in blue in Figure 24. This area is the area selected by the mining study as the initial excavation, including the batter areas. Lignite resources, including all mineable coal horizons, in the Phase I area are calculated at 128Mt, with 885 Mm^3 of overburden. This gives a stripping ratio of 6.91:1 bcm/t. Points of observation (i.e. boreholes) are spaced >500m apart and because there is little or no variation in the geology between the boreholes in terms of lithology, overall thickness and seam

elevation, it is considered that this Phase I area be classified as measured resources. A conceptual mine plan and a financial model for Phase I have been completed and in accordance with the JORC Code the measured resources in the Phase I area can be classified as **proved reserves** (Table 20).

3.1.4 Phase II Open Pit Area.

Within the remaining prospective mine area, the Phase II open pit area will follow on from the Phase I excavation. The lignite resources in the Phase II area are calculated at 243Mt with 1,685Mm^3 of overburden. As in the case of Phase I, this total excludes lignite discounted under the batter areas. This gives a stripping ratio of 6.94:1 bcm/t. As in the Phase I area, the geology is extremely consistent and allowing for the fact that the points of obseravation may be >500m apart, the high level of confidence means that the resources in the Phase II area can be considered as measured resources.
As for Phase I, Phase II has a conceptual mine plan and financial model, and these resources can be classified as **proved reserves** according to JORC code and shown in Table 202.

	Overburden Mm^3	**Lignite Measured Resources Mt**	**Lignite Proved Reserves Mt**	**Stripping Ratio bcm/tonne**
Block VI Area	10,200	1,423	-	7.17
Total Mine Area	3,673	653	-	5.62
Phase I Open pit Area	885	-	128	6.91
Phase II Open pit Area	1,685	-	243	6.94

Table 20: Lignite Resources/Reserves for Block VI and open Pit Areas according to the JORC Code (2004)

From the above it can be shown that the **measured resource** of lignite for the whole Block VI area is 1,423Mt and that the **proved reserves** of lignite in the Phases I and II Open Pit areas total 371Mt.

The current drilling programme is designed to further delineate the reserves in the Phase I Open Pit area. These results will provide a closer spacing of data points and a greater degree of certainty regarding the nature of the rock sequence, the character of the lignite(s) and lignite quality within the Phase I mine area. This will assist both the geological modelling of the deposit and the mine design. A more definitive resource/reserve estimate will be determined using these latest results.

4 MINING

4.1 Introduction

This section of the report describes the mine design for the proposed lignite mine in Block VI of the Thar Coalfield (hereinafter "the Mine")

The mining technology investigated for this report is a combination of truck and shovel and belt conveyors. Other traditional means of exploiting lignite deposits use bucketwheel excavators also known as continuous systems. This report outlines a truck and shovel operation for Thar based on the original concept of mining 2.5Mtpa.

However, the mine design currently being developed as part of the feasibility study will focus on a 4Mtpa mine using the same type of technology but using economies of scale to build a more robust economic operation.

The use of trucks and hydraulic shovels offers great flexibility in operation and in-built redundancy, increasing the overall reliability of the mining system. The selection of truck and shovel sizes is determined by the required capacity of the mine to meet the requirements of the power station and industrial sales of lignite. However, there is a shortage of large tyres for mobile equipment in the Southern Asian Region and this has a significant influence on the selection of equipment for the Mine.

4.2 Description of the Mining Process

4.2.1 Mining Technology

4.2.1.1 Mine Boundary

The Boundary of the Mine has been made within Block VI of the Thar coalfield as shown in Figure 24.

A basic criterion for setting the borders was the vertical stripping ratio. Within the borders of the Block VI, the Mine has been contoured into two phases shown in Figure 25 and Figure 26 that show the isolines of the vertical stripping ratio. Phase I includes the Mine with coal reserves sufficient for opening a power plant of 300 MWe. Phase II of the Open Pit Mine development enables expansion of the Power Plant with approximate power of 800 MWe. The measured resource identified in Sections 3.1.3 and 3.1.4 of this report are believed to be sufficient to support operation of a power plant of up to 1,100MWe.

During the Phase I operation of the Mine, all overburden will be dumped out of the pit. During Phase II operation, the spoil will be dumped in the pit, filling the void behind operations as the mine progresses.

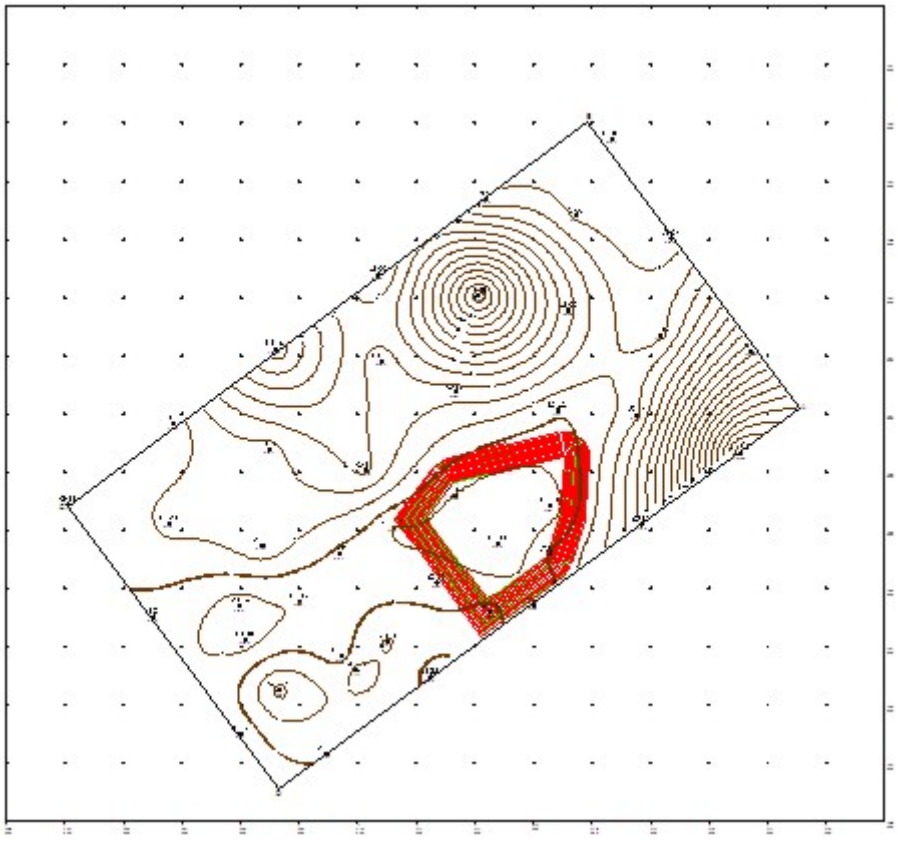


Figure 25: Open Pit Mine Borders - Phase I

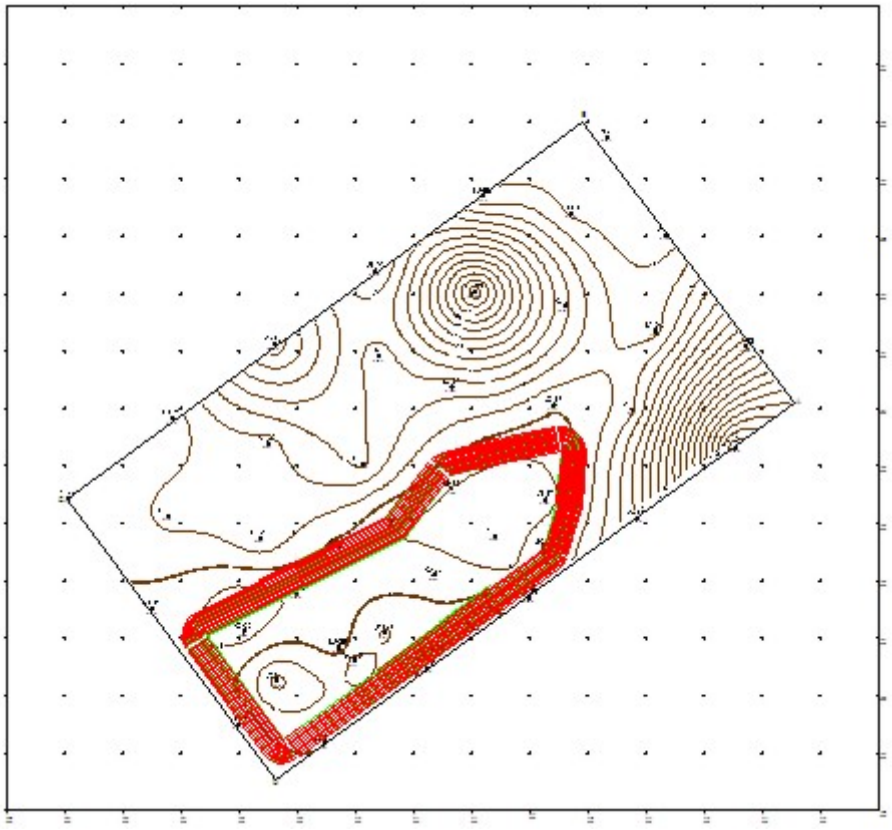


Figure 26: Open Pit Mine borders - Phase II

4.2.1.2 Mine Construction

Mine construction has been outlined in line with the Mine borders, physico-mechanical characteristics of coal and accompanying rocks and the foreseen mining system.

The basic construction parameters of the Mine (slope angles, bench height, etc) are determined based on the physical-mechanical characteristics of the working environment.

Benches of the Mine are 15m high and terraced at and overall 60^o angle (to the horizontal) with the maximum height of the finishing slope of the Mine being 190m and inclined at 24^o.

4.2.1.3 Finishing Slope Safety Factors

Slope safety factors have been calculated using the *SLOPE/W 3* computer programme, based on the determined characteristics of the overburden and lignite.

For the above slopes, the safety factors are 1.28 to 1.39, which are adequate.

4.2.2 Calculation of Overburden, Interburden and Lignite Quantities

Calculation of overburden, interburden (interseam waste) and mined lignite quantities has been done by to the miniblocks method using the *Surfer* software package. Calculation has been made for both Phase I and Phase II of the Mine, details of which are shown in Section 3.1.3 and summarised in Table 21.

Mine Area	Coal M tonnes	Overburden Mm^3	Interburden Mm^3	Stripping Ratio Bcm/t
Phase I	128	791	94	6.91
Phase I + II	371	2,265	305	6.93

Table 21: Quantities of Overburden, Interburden and Lignite in the Mine

The figures quoted are actual mining volumes, that is the stripping ratio takes into account the volume of the batters and coal contained in the batters.

4.2.3 Mining System

The Mine is designed for the production of 2.5 million tonnes of lignite per annum. The power station will require 1.75 million tonnes, with 0.75 million tonnes being available for industrial sales.

Two alternative systems have been evaluated for overburden removal. The first is full truck and shovel operation and the second is limited truck and shovel operation combined with overburden crushing, conveying and distribution by a spreader.

During Phase I operations, the mine will have to be opened, requiring an extended period of overburden removal, prior to production of lignite. During the opening stages of mine construction, all overburden will be removed to an out-of-pit dumping area.

When mine construction is complete and the pit geometry has been fully developed, it will be possible to dump the spoil back into the void behind the working face. Also, at this point in time, the amount of overburden to be removed will be reduced (by reason of pit geometry, rather than geological reasons). During Phase II operations, the number of trucks can be reduced as the haulage distance required is shorter.

For the purposes of this study, the operations during Phase II are considered to be truck and shovel only.

At the present time, there is a world shortage of tyres for large mining trucks. Some truck manufacturers will only supply trucks without tyres, leaving users to source their own tyres. The largest size of tyre that is readily available is that for 100m^3 trucks. There are a number of manufacturers of this size of tyre, including some in India, such that they should be available for this project. Larger tyres are only made by three companies in the world and in the present economic climate, there is insufficient manufacturing capacity to meet the demand. For this reason, trucks of 78m^3 capacity have been selected for the mine design.

However, this situation should be reviewed at the time of final mine design, since considerable cost savings could be made by the use of larger equipment.

The average life of mobile plant is considered to be 10 years and it is expected that all mobile equipment will be replaced at that time. The Mine equipment is expected to operate 6,000 hours per year, after allowance for public holidays, maintenance and breakdowns.

In all cases, the number of shovels required to service each shovel has been determined using computer simulations, taking into account queuing phenomena and availability criteria.

4.2.3.1 Consideration of Overburden Mining System Options

4.2.3.1.1 Truck and Shovel Only (Option 1)

For the option of trucks and shovels only, the overburden will be excavated by five hydraulic diesel powered excavators of 22 m^3 capacity. During Phase I operations, each excavator would be serviced by eight 78m^3 trucks hauling overburden a distance of approximately 5km to the out of pit dumping area.

During Phase II operations each excavator will be serviced by six trucks.

4.2.3.1.2 Truck and Shovel with Conveyors (Option 2)

Due to the long haulage distance for the trucks, an option to conveyor the overburden for part of the distance has been considered. In this option, the overburden would still be mined using five diesel hydraulic shovels, but only six trucks per shovel will be required during Phase I. During Phase II the number shovels can be reduced to four with each being serviced by five trucks.

In this option, the overburden must be crushed before it can be placed on a belt conveyor and this has been included.

4.2.3.1.3 Evaluation of Options

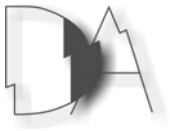
The two Options were evaluated using the discounted cashflow technique to determine the most cost effective method. The evaluation considered only the Phase I operating of the mine (including construction) since Phase II operations are similar in each case. The evaluation also considered only cash outflow, since cash inflow is the same in both cases. The evaluation method produces an NPV of the cash outflow, so a higher value is a worse outcome.

The NPV of Option 1 (Truck and Shovel only), with a 10% discount rate and using current cost estimates, is £220 million and the NPV of Option 2 is £181 million. Option 2 has therefore been selected as the base option for this study.

4.2.3.2 Description of Overburden System

Each shovel will have the services of a 400kW bulldozer to ensure that material is always available for the shovel to lift.

The layout of the mine showing conveyors belt at the end of opening the Mine to the point where lignite will be recovered, are shown in Figure 27.



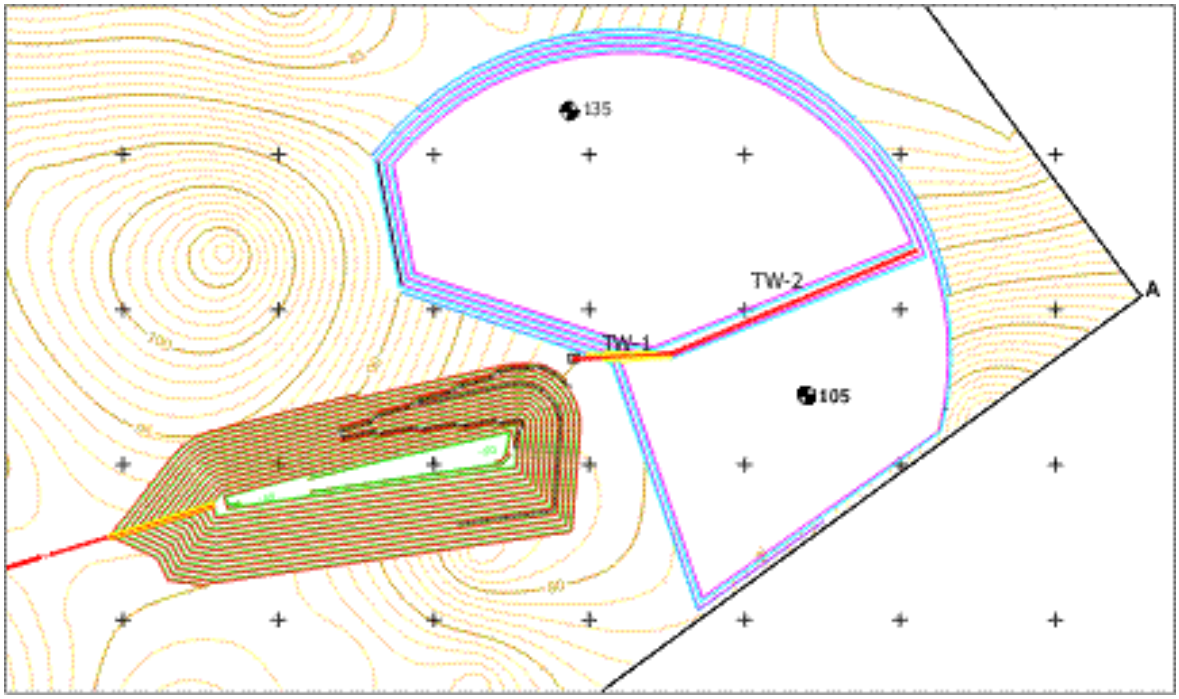


Figure 27: Position of conveyors for waste on the end of opening stage 3 of the Open Pit Mine

Overburden will be transported by truck to a dumping station located at ground level. All haulage out of the pit excavation will be by truck. A typical dumping station is shown in Figure 28. At the bottom of the dumping station, a crusher will crush the overburden to less than 200mm so that it can easily be transported by belt conveyor.

Figure 28: Typical Dumping Station

Figure 29: Dump Station

Two conveyors, denoted TW-1 and TW-2 in Figure 27, each 1600mm wide will convey the overburden to a spreader. Conveyor TW-1 will require a 1600kW drive and Conveyor TW-2, a 2,000kW drive.
Specifications for the two conveyors are given in Table 23.

Conveyor	Max. Length (m)	Head pulley level	Tail drive level	Belt width	Belt speed (m/s)
TW-1	630	120	80	1600	2.09
TW-2	2050	105	105	1600	2.09

Table 22: Overburden Conveyor Belts Basic Characteristics

The spreader distributes the overburden over a wide area and reduces the need for bulldozers. A typical spreader is shown in Figure 30

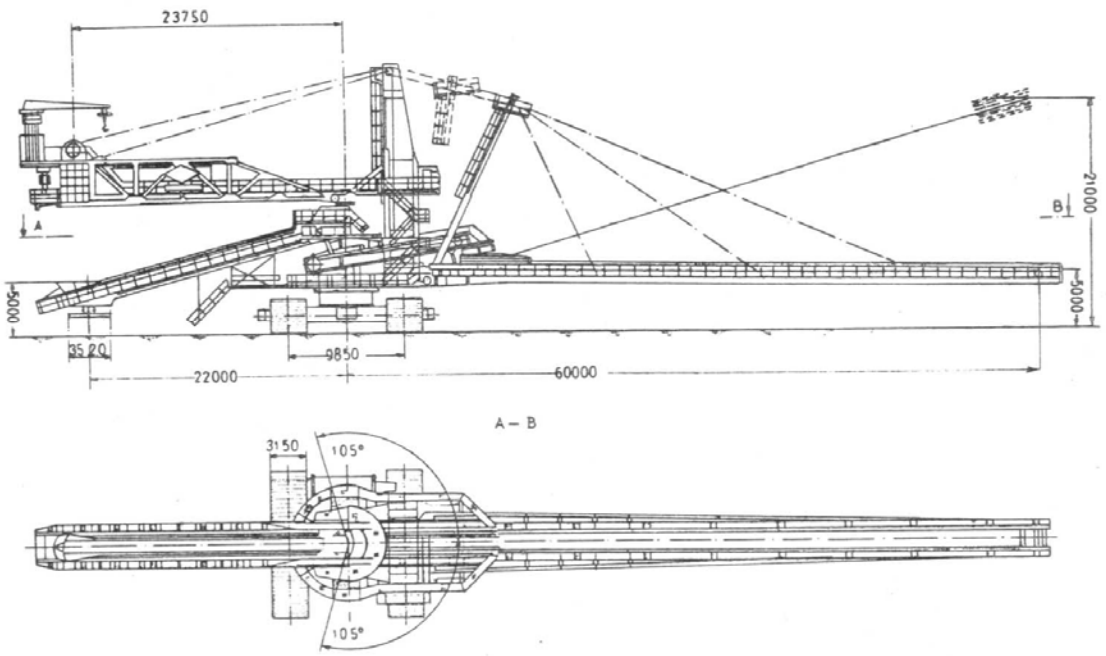


Figure 30: Typical Spreader

In operation, the spreader is fed with coal by conveyor belt (from the left of Figure 36), which is transferred to the spreader conveyor (the large suspended conveyor on the right of Figure 36). This spreader conveyor is able to slew to the left and right (pivoted about the axis indicated by the radius lines in the centre of Figure 36) and is also able to luff up and down. In addition the spreader can move across the ground on tracks, as shown in Figure 36.

4.2.3.3 Description of Lignite Mining

Lignite will be mined by diesel hydraulic shovels of 6m^3 capacity and loaded into 35m trucks. Transportation of lignite from the Mine in the early stages of mine opening is done by trucks. After this phase conditions are met for installation of conveyor belts for coal transport. Positions of this conveyor belts are shown on Figure 31.

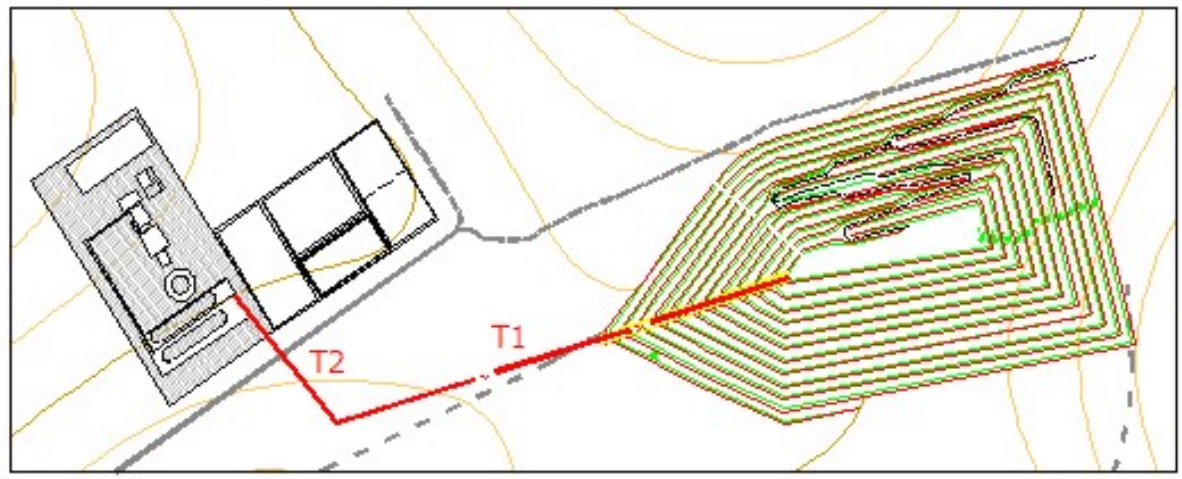


Figure 31: Position of Lignite Conveyors in the Mine

Basic characteristics of the belts are given in the Table 23.

Conveyor	Length (m)	Head pulley level	Tail drive level	Belt width	Belt speed (m/s)
T1	1700	93	-75	1200	2.09
T2	565	90	93	1200	2.09

Table 23: Lignite Conveyor Specifications

4.2.4 Mine Development

4.2.4.1 Opening Stage 1

The First stage of the Mine opening represents the phase of overburden removal and forming of the coal exploitation benches up to the level of -75 m. In this opening phase the working front of coal exploitation is formed with the minimum length for equipment work of 160m and the progressing course towards North-East as shown in Figure 32. Phase 1 mining lasts for 2 years.

Transport of overburden and interburden in Variant II will be by combined trucks-crusher-conveyors-spreader system. Average distance for waste truck transport in this phase is 3000m with 30 trucks. Position of crusher is a function of open pit and dump limits and waste transport distance in all phases of opening. The crusher position will remain fixed for the entire opening period. After crushing, waste transport operates by two conveyors with belts width of 1,600mm. The first conveyor is 350m long and transports waste from crusher to second dump bench conveyor on level 90m, which has a length of 2,050m.

During this stage, local contractors will be employed to assist with overburden removal. In this way, overburden can be removed faster than can be achieved with the equipment required for the longer-term operation of the mine. The use of contractors will allow coal to be produced one year earlier than would otherwise be possible, without incurring the cost of additional equipment that could be redundant within two years.

As the power plant will be ready some time after the coal will be mined, the excess production will be sold to industry.

At the end of the Stage 1, lignite mining starts with 2 hydraulic backhoe shovels. The transport of lignite will be by 5 trucks with average transport length of 6000 m to the lignite stockyard.

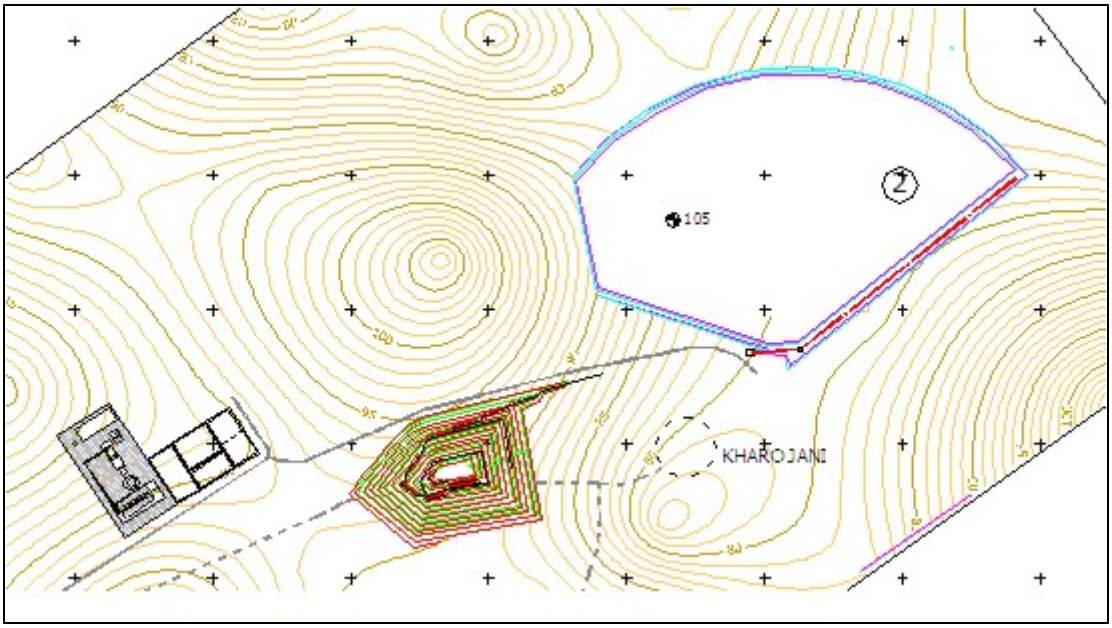


Figure 32: Stage 1 of the Open Pit Mine opening

Total mass volume that is removed in this opening phase is 67.523 million bcm with the bench volumes shown in Table 24.

Bench	Middle Area (m^2)	Bench Height (m)	Volume (m^3)
-75	35415	15	531.225
-60	70285	15	1.054.275
-45	120461	15	1.806.915
-30	182477	15	2.737.155
-15	255120	15	3.826.800
0	339782	15	5.096.730
15	441946	15	6.629.190
30	549771	15	8.246.565
45	669525	15	10.042.875
60	799304	15	11.989.560
75	939959	15	14.099.385
90	292623	5	1.463.115
		∑	67.523.790

Table 24: Total volume in Opening Stage 1

4.2.4.2 Opening Stage 2

The Second stage of Mine opening represents the progress of the working front of overburden and coal exploitation towards North-East and construction of the cut for the installing of coal crusher and conveyor belts on the Western part of the cut opening. Figure 33 shows Stage 2 of mine opening, which lasts for 2 years.

Transport of waste in the chosen option is the same as in opening Stage 1 with 41 trucks. Average distance for waste transport by trucks in this phase is 2,850m. The lengths of conveyors for waste is same as in the first phase with the position of the dump bench conveyor in the line of advance of the working face on the dump bench.

Lignite will be transported to the crusher by five trucks. The average transport distance is 850m. The position of coal crusher is on bench on level -75m. This position is determined by the vertical centre of coal mass. Two conveyors, each 1,200mm wide, will transport the coal. Conveyor T1 is 1,700mm long and T2 is 565m long.

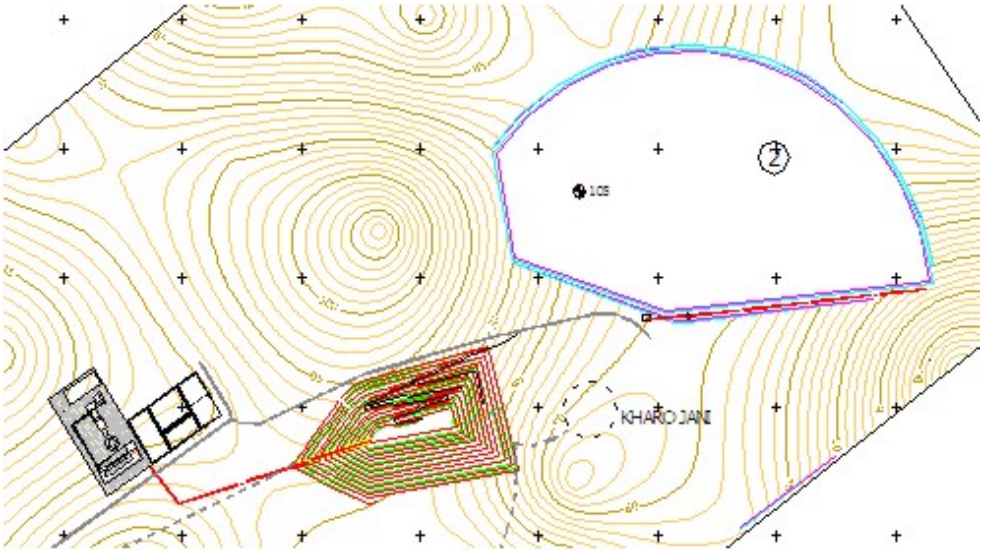


Figure 33: Stage 2 of the opening of Open Pit Mine

Total volume of overburden to be moved in Stage 2 of the opening of the Mine is 103.729 million bcm.

4.2.4.3 Opening Stage 3 - Inner dump forming

Stage 3 represents the final opening phase with the beginning of the inner dump being formed. Working front progress in this stage is from North-East to the border of the finishing contour, i.e. forming the box-cut in the direction South-West–North-East with the length of 3 km as shown in Figure 34. In this Stage the deposit is open to its slope in the full width of the working front. After this phase the extraction is done towards South and South-West with the maximum working face length.

Average distance for coal transport by trucks is 1950 m. Average distance for waste transport by trucks from open pit to waste crusher is 3400 m. Position and length of conveyors for coal is the same as in the previous phase. The first conveyor for waste is now 630 m long and transports the waste form crusher to second dump bench conveyor on level 120m, on the second dump bench. The length of second conveyor is 1710 m.

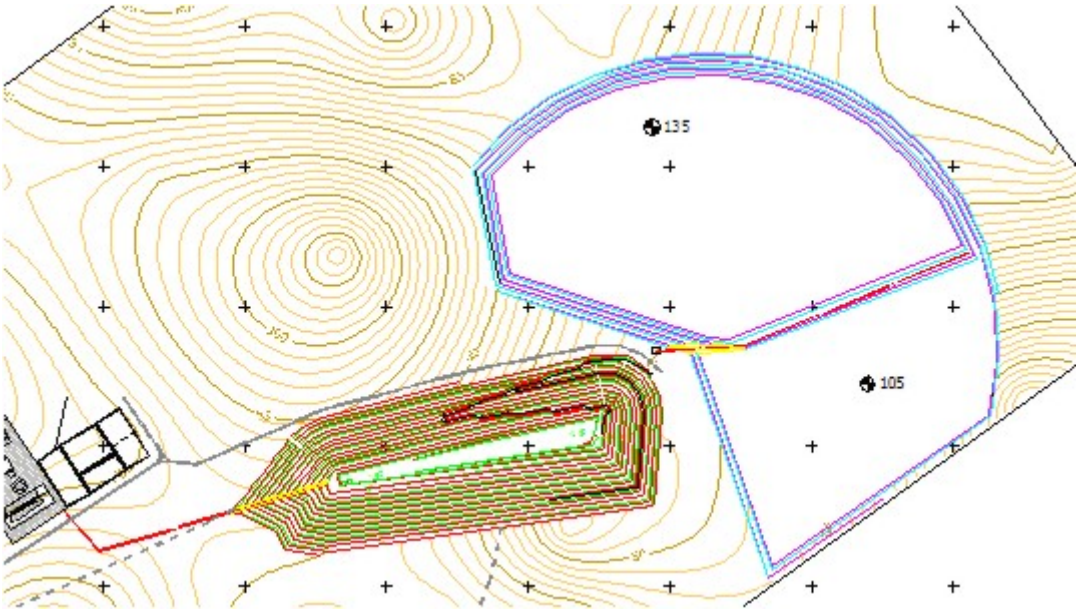


Figure 34: Stage 3 of the opening of Open Pit Mine

The total volume contoured in Stage 3 of the Opening of the Open Pit Mine has been calculated as 260.732 million bcm.

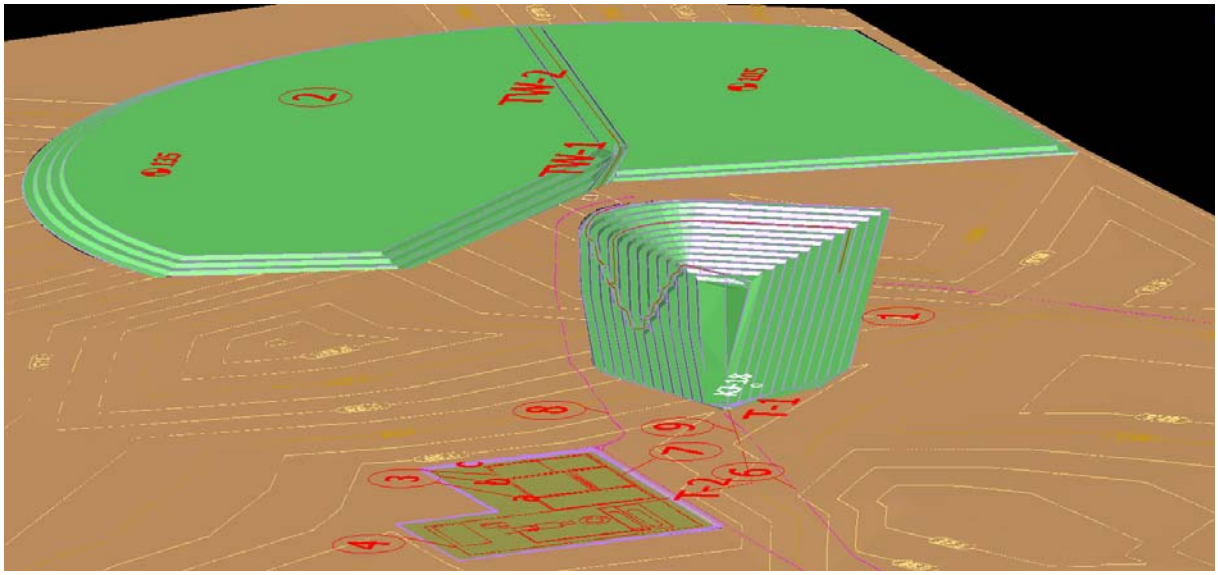


Figure 35: 3D view of the Mine at the end of Stage 3

Figure 35 shows a 3D view of the Mine at the end of Stage 3 of the opening Phase I.

4.2.4.4 Equipment

In addition to the main overburden and lignite mining equipment, the mine will require a 5m^3 wheel loader for general loading, a general purpose bulldozer and a grader for road maintenance.

A full schedule of equipment for use in the mine, on a year-by-year basis is shown in Table 25.

Year Equipment 6000Hrs T&S + Conv	Phase I	Phase II
Equipment in service		
Hydraulic Shovels (22m3)	5	4
Dozers (400kW)	10	8
Wheel Loader (5m3)	2	2
Trucks 785	30	21
Hydraulic Shovels (6m3)	0	2
Trucks 773	0	6
Grader 190kW	2	2
Service Truck	2	2
Mobile crane 50t	1	1
Light vehicles	10	10
Lighting sets	10	10
In-pit Crusher Coal	0	1
Overland Conveyor Coal	0	1
Water Truck 20kl	1	1
Fuel Truck	1	1
Vehicle Workshop & Fuel Storage	1	1
Fork Lift	1	1
Man Transporter	3	3
Dewatering pumps	30	30
Dewatering Drill	1	1
OB Crusher	1	
OB Conveyors	1	
OB Spreader	1	

Table 25: Equipment Usage Schedule

4.2.5 Dewatering

Dewatering of the aquifer above the lignite seam will be required and the following describes a possible dewatering scheme.

In the opening phase, at the end of the first year of mining, dewatering of the Mine will start. It will be necessary to make a dewatering system that consists of wells, gravitational pipelines, canals, water collectors and pump stations.

In first two years of dewatering, for the first Stage of opening, it is necessary to build 25 wells in the line LB-1 (Figure 36). Wells have the capacity of 12 l/s and are spaced at 200m intervals. The average well depth is 130m with a diameter of 600mm. Water from the wells will be pumped to gravitational pipelines through pressured pipelines that end in the main collector ZS-1. From the main collector water gravitationally runs through the pipelines all the way to channel OK, the trapezoid cross-sectioned canal.

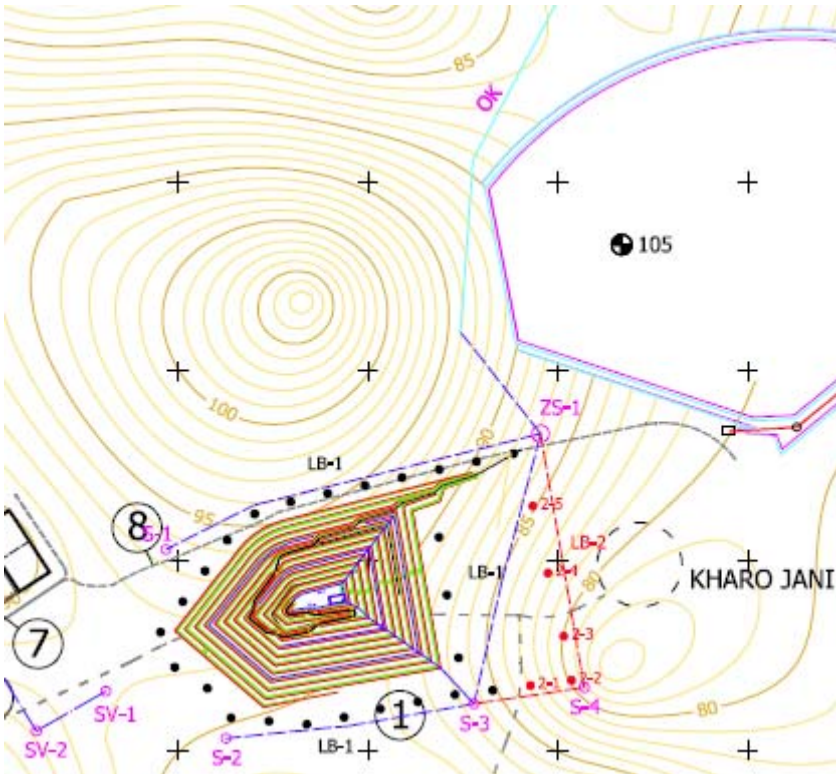


Figure 36: Plan of Dewatering in Stage 1 of the Mine Opening

During the third year of dewatering (end of Stage 1 of the opening) construction of bench channels and water collectors with a volume of around 17,500 m^3 is planned. The water collector station has three pumps with capacity of 45 l/s for pumping heights of 60 m and a motor power of 60 kW. The pressured pipeline has the diameter of 150 mm and length of 1,200m. At the end of the third year another 5 wells should be constructed (line LB-2) and additional gravitational pipeline installed (Figure 36).

In the second Stage of opening, lasting 2 years, it will necessary to construct another 7 wells (line LB-3) and setup a new part of the gravitational pipeline for dewatering of Open Pit Mine (Figure 37).

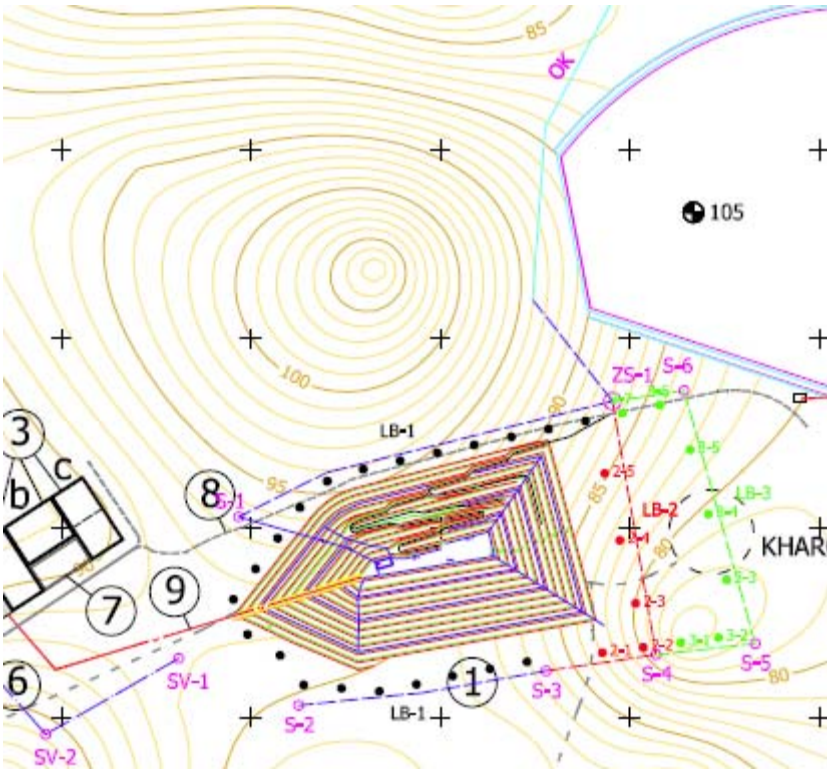


Figure 37: Plan of Dewatering in Stage 2 of the Mine Opening

Third Stage (Figure 38) lasts for 7 years and in that period it is necessary to construct line of wells, LB-4 with 9 wells. Construction costs are approximately £1 million, which is around £170,000 annually for 6 years.

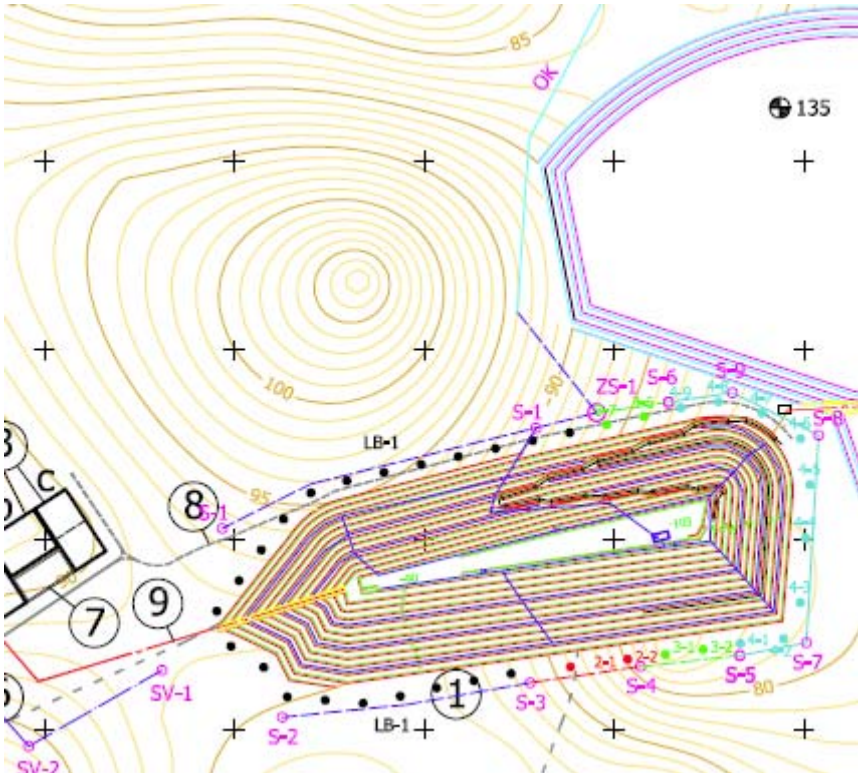


Figure 38: Plan of Dewatering at the end of Stage 3 of the Mine Opening

In the later period of Open Pit Mine development, construction of a new line of wells (12 wells) is foreseen, every 3 years. Later in the project it is currently considered necessary to assign £325,000 annually for dewatering.

4.3 Production

The Production Plan is shown in Table 26, this is based on the above strategy of developing a 2.5Mtpa product level. However, the current plan is that lignite production will build from initial production in 2013 to the revised target of full output of 4 million tonnes. It is planned that overburden removal will commence in 2012. The plan indicates that some 64.5 million bcm will be removed prior to lignite production.

Year	2012	2013	2014	2015	2016	2017	2018	2018	2019
Production Lignite 000's t	0	1000	2000	2500	2500	2500	2500	2500	2500
Production Lignite 000's bcm	0	833	1,667	2,083	2,083	2,083	2,083	2,083	2,083
Overburden 000's bcm	32,250	32,250	21,500	21,500	21,500	21,500	15,000	15,000	15,000
Stripping Ratio	-	10.8	8.6	8.6	8.6	8.6	6	6	6

Table 26: Proposed Mine Production Plan

4.4 Mine Management Options

For the purposes of this study, it has been assumed that the owner will carry out all work on the Mine. However, it is feasible that contractors could carry out some or all of the work.

The scale of this mining operation dictates that the size of equipment to be used will be beyond the scope of most local contractors. However, there are several international companies that would be capable and willing to undertake all mining operations. If all operations were to be contracted out, there would be very little capital cost involved, essentially just comprising the infrastructure for the mine. Operating costs in the long term would be higher with a contractor, but this is counter balanced by the lower capital expenditure.

It will be necessary to commence operations with a local contractor. Local contractors using relatively small equipment will assist the initial excavation. This will enable coal to be produced earlier than otherwise possible.

4.5 Capital Cost

The cost of construction of the mine will include the purchase of equipment, establishment of buildings and other physical purchases as well as the cost of operating equipment for the initial excavation up to the time of producing coal. The cost of equipment will depend on whether the mine is operated by SCE own employees and equipment or a contractor operates the mines. The feasibility study will consider these options.

The original estimated capital cost up to production of lignite was estimated to be £189 million. This includes purchase of mining equipment and SCE's own operation, as well as the operation of the equipment to lignite production. It also includes the cost of employing contractors to assist in opening the mine. Further refinement of costs will result after the findings of the current feasibility study.

4.6 Current Mine Design

The current feasibility study will produce the geological model, initial mine design for a 4Mtpa mine, lignite and overburden production schedules together with a mine dewatering scheme using the results of the previous and current geological and hydrogeological investigations. In addition, they will produce a financial model, all of which will form part of the feasibility study.

5 ENVIRONMENT

5.1 Introduction

Dargo Associates Ltd commissioned Isabel Stanley of Mott MacDonald International to report on the environmental aspects of the project.

The scope of work for the environmental aspects of this report are:

1. Define the environmental protection measures to be taken;
2. Review the Pakistan environmental regulations as they apply to surface mining and power generation;
3. Review the specific regulations applying to the mine and proposed power plant in relation to World Bank IFC and the Equator Principles;
4. Provide an estimated cost for the Environmental Impact Assessment (EIA); and
5. Provide an estimate of cost for an environmental report on the area and the mine.

The information required to produce this report has been gathered from a desk top study of information gathered by Dargo Associates Ltd, internet interrogation and previous experience of working on a Greenfield mining development Pakistan.

5.2 Background

The lignite mine and power station is proposed for the Thar region of the Sindh Province in Pakistan. The mine is located roughly at

Lat 24 deg 47 min N;

Long 70 deg 18 min E near Islamkot.

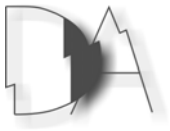
The Thar region is a monsoon desert area with a very low population density. The Sindh Coal Authority produced a Site Assessment Report for the Thar region covering an environmental baseline and soil survey for RWE Power International in December 2004 ("Baseline Study Report"). Some environmental information was collected for that report including climatic, ecology, groundwater, air quality and heritage. Population data was also collected and the study area for the report identified three villages nearby. It is very likely there will also be nomadic people utilising the area for opportunistic grazing.

The quality of the original data used for the report cannot be assessed directly but the information may be of value in future environmental and social studies for the proposed mine and power plant.

5.3 Environmental Scope of Work

During the feasibility stage of the project it will be necessary to fully define the exact scope of works for an Environmental Impact Assessment (EIA) and this will require a reconnaissance site visit. A full review of the existing Baseline Study Report should occur prior to any scoping visit, which will provide a better outline of the existing environmental and social conditions of the area in which the project will occur.

At a minimum an EIA will be required to support any application to operate a mine and power plant in Pakistan. It may also be a requirement of any application to obtain or to transfer mining leases. The EIA will require an environmental baseline study, potentially building on historical information from the 2004 Study. While not specifically required under



Pakistan legislation, which is further discussed below, an evaluation of any social impacts of the project will be critical.

Once the baseline work has been undertaken this will be examined in conjunction with the full project description to identify environmental and social impacts arising from the project. It is important that the environment team works closely with the project engineers throughout the development of the design of the infrastructure so that environmental considerations can be identified during project design. This will go a long way to mitigating any environmental impacts, often through slight modification of a design in early stages.

Throughout the process it would be advisable to commence early public consultation, especially with interested non-government organisations and government bodies. Public consultation is a requirement of Pakistan legislation at the approval stage but early public consultation can prevent last minute issues being raised at approval stage. Once the design of the infrastructure and an identification of the construction and operational methodology have been formed for the feasibility study the EIA can be completed by identifying mitigation and monitoring measures for the EIA.

Once submitted the EIA will enter an approval process by the Pakistan authorities, requiring public consultation and presentation at a public hearing.

Based on previous experience of mining development in Pakistan, it needs to be emphasised that social issues including land acquisition, use of local labour and working conditions, impacts on water supply, local procurement, community health and cultural heritage have the potential to generate considerable public concern during consideration of an EIA. A full social impact assessment should be incorporated into the environmental work to be carried out.

In summary, the environment requirements for the feasibility study will include, but may not be limited to:

- An initial in country scoping study to fully define the extent of the project and to consult with relevant bodies;
- A baseline study including – geology, hydrology, hydrogeology, topography, climate, ecology, air quality, noise, visual impact, heritage (both cultural and historic), demography, religion, literacy and numeracy, health, social services, housing, land use and economics;
- Review of legislation to ensure all aspects are incorporated into design of the project;
- Interaction with engineering design teams to input to the project and to identify appropriate mitigation measures for any environmental impacts;
- A public consultation program throughout the development of the project;
- Development of the EIA
- Consultation with relevant authorities.
- Production of a draft EIA;
- Submission of final EIA to authorities;
- Development of publicly available literature for dissemination on the EIA; and
- Presentation of environmental issues at the public hearing.

5.4 Applicable Environmental Laws in Pakistan

Pakistan's chief legal instrument is the 1973 Constitution of the Islamic Republic of Pakistan. "Environmental pollution and ecology" is listed as a concurrent subject, which allows both federal and provincial governments to legislate on matters governing natural resources. In practice, however, law-making to regulate natural resource use is left primarily up to provincial governments with most laws governing natural resources operating as provincial laws.

A summary of the legal issues which may impact on any mining development is provided below. However, it is clear that the provincial Sindh authorities have sweeping powers to exempt or amend legislation and in reality the acceptable standards for any EIA would be negotiated on a case by case basis once the project had been committed. The information provided below could be considered a worst case.

5.4.1 General

Federal statutes governing natural resources regulate the orderly prospecting and exploitation of those resources to ensure their continued availability for future exploitation, rather than providing for conservation and development. For the most part, federal legislation fails to provide for environmental conservation or protection.

The Sindh legislature has acted only infrequently to frame laws regarding natural resources. Laws aimed specifically at protecting and conserving natural resources are noticeable by their absence. A single provincial Wildlife Ordinance provides for the protection of certain species but allows government officials to grant broad exemptions and awards unqualified indemnity from prosecution to such officials for acts performed in their official capacities. This law has also been amended recently to lift restrictions previously imposed on the conduct of activities such as oil and gas exploration in protected areas.

The **Pakistan Environmental Protection Act 1997 (No. XXXIV) (PEPA)** establishes the Pakistan Environmental Protection Council (section 3), as well as environmental protection agencies at the federal and provincial level (sections 5 and 8).

The **National Environmental Quality Standards (NEQS) SRO 742(I)/93 dated 29 August 1993** specify maximum limits for municipal and liquid industrial effluent (section 2, read with Annex I), industrial gaseous emissions (section 2, read with Annex II), and exhaust and noise pollution from motor vehicles (section 2, read with Annex I). These standards have been revised and amended from time to time, and substantively so in the year 2000. to **NEQS SRO 549(I)/2000**.

The Air Quality Standards are particularly relevant to this project. The sulphur dioxide (SO_2) and oxides of nitrogen (NOx) standards are stated as emission standards of 1700 mg/Nm^3 and 1200 mg/Nm^3 respectively. In addition ambient criteria are stated for both SO_2 and NOx as shown in Table 27 below.

A. Sulphur Dioxide				
Sulphur Dioxide Background Levels Micro-gram per cubic metre (ug/m^3) Standards				
Background Air Quality (SO_2 Basis)	Annual Average	Max. 24-hours Interval	Criterion I Max. SO_2 Emission (Tons per Day per Plant)	Criterion II Max. Allowable ground level increment to ambient (ug/m3) (one year average)
Unpolluted	< 50	< 200	200	50
Moderately Polluted*				
Low	50	200	500	50
High	100	400	100	10
Very Polluted**	> 100	> 400	100	10

* For intermediate values between 50 and 100 (ug/m^3) linear interpolations should be used.
** No projects with sulphur dioxide emissions will be recommended

Nitrogen Oxide
Ambient air concentrations of nitrogen oxides, expressed as NO_x should not be exceeded the following:
Annual Arithmetic Mean 100 (ug/m^3) (0.05 ppm)

Emission level for stationary source discharge before missing with the atmosphere, should be maintained as follows:

For fuel fired steam generators as Nanogram (10^0-gram) per joule of heat input:	
Liquid fossil fuel	130
Solid fossil fuel	300
Lignite fossil fuel	260
Note: Dilution of gaseous emissions to bring them to the NEQS limiting value is not permissible through excess air mixing blowing before emitting into the environment.	

Table 27: Ambient air quality levels NEQS, 2000

Discharges or emissions in excess of the NEQS or other standards established under PEPA are prohibited (section 11(1)). The federal government may levy a pollution charge on parties found to be violating the NEQS (section 11(2)).

The **National Environmental Quality Standards (Self-Monitoring and Reporting by Industry) Rules 2001 SRO 528(1)/2001 dated April 2001** place certain obligations on industry to monitor and report to the Federal Agency emissions, effluents discharged and other data sets.

Environmental Protection Agency Review of Initial Environmental Examination and Environmental Impact Assessment Regulations 2000 (SRO 339(I)/2000 dated 13 June

2000) PEPA requires that an environmental assessment is carried out for new projects (section 12), defined comprehensively to include all major activities that may have an impact on the environment (section 2(xxxv)). The type of environmental clearance required for various projects is specified in the IEE/EIA Regulations 2000. Provincial sustainable development funds are to be established to provide financial assistance to suitable projects (section 9). Meanwhile, the Federal Agency may issue an environmental protection order to prevent an actual or potential adverse environmental effect (section 16).

5.4.2 Extractive Industry—Mining, Petroleum.

There are no provisions to mitigate the environmental impacts of mineral exploration and production. Nor has the government passed any framework legislation to implement federal policy on the subject or to establish guidelines for exploring, exploiting and closing sites where minerals and petroleum products are extracted.

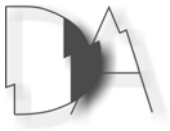
Exploitation of minerals other than oil, natural gas and raw materials for the nuclear industry, is a provincial subject.

The protections available under provincial law are vague and open to broad exemptions. The Sindh (Prohibition of Taking Minerals including Reti (Sand) and Bajri from any Land) Act 2003, for example, prohibits the sanctioning of sand and gravel extraction if such activity is likely to adversely affect the ecology and environment of the area but fails to spell out how this provision is to be enforced. Similar considerations are not included in the **Sindh Coal Development Authority Act 1993** or the **Sindh Industrial and Mineral Development Corporation Act 1988.** Various aspects of mineral exploration and extraction activities are also governed by non-sector specific laws but the focus is on regulating mining for commercial gain rather than minimising environmental impacts.

Under **PEPA** the **Environmental Protection Agency Review of Initial Environmental Examination and Environmental Impact Assessment Regulations 2000 (SRO 339(I)/2000 dated 13 June 2000),** require the submission of an IEE and EIA to the Federal Agency for mining and mineral processing projects, depending on the scale of the operation. The Federal Agency may itself issue an environmental protection order in cases where extraction processes are causing or likely to cause an adverse environmental effect (Section 16). At the local level, the district law office is responsible for assisting in the implementation of PEPA 1997 (Sindh District Government (Conduct of Business) Rules 2001, section 3(2), read with schedule II, item 8(ii)).

Mining and processing operations involving iron, non-ferrous metals, copper, coal, sulphur, gold and precious stones must undergo a prior EIA (Schedule II, Section C). Smelting plants costing 50 million rupees or more, and steel rolling operations, require an EIA. The IEE regime applies to the commercial extraction of sand, gravel, limestone, clay and other minerals not mentioned in Schedule II, and costing less than 100 million rupees (Schedule I, Section D). Operations involving crushing, grinding and separation are also subject to an IEE.

The penalty for non-compliance with the provisions governing discharges and emissions (Section 11), and environmental protection orders (Section 16) is a fine that may extend to 1 million rupees for a first offence (Section 17(1)). For non-compliance with provisions governing the handling of hazardous substances (Section 14), fines may extend to 100,000 rupees (Section 17(2)). Penalties for repeat offenders may include closure or confiscation of the factory, machinery, equipment or substance involved in the offence; an order to restore the environment at the violator's own cost; and an order to pay compensation for any loss, bodily injury or damage to health or property caused by the violation, in addition to imprisonment for up to two years (Section 17(5)).



The **Regulation of Mines and Oil Fields and Mineral Development (Government Control) Act 1948** regulates the development of mines, oilfields and mineral deposits. The federal government makes rules related to the development of mines and nuclear substances, oilfields and gas fields, while provincial governments make rules related to other minerals and their extraction. Rule-making power includes exploration and prospecting licenses, payment of royalties and license fees, refining ores and mineral oil, and their storage and distribution (Section 2). All powers under this law have been delegated to the "appropriate" government—the federal government in the case of radioactive minerals, oil and gas, and the provincial governments for all other mines (Section 6).

The **Mines Act 1923**, which is largely administrative in nature, regulates mining operations and mine management, and contains provisions regarding the health, safety and working conditions of mine labour. The power to make rules lies with the "appropriate government" (Section 29), defined as the federal government in the case of mines extracting radioactive material, oil, gas and flammable substances, and the provincial government for all other mines.

The **Land Acquisition (Mines) Act 1885** regulates the acquisition of land for the purpose of mining. Land is to be acquired in accordance with the **Land Acquisition Act 1894**. Provincial governments are empowered to extend the ambit of this law to any of the areas within their jurisdiction (Section 1(3)).

Sindh Local Government Ordinance 2001 (No. XXVII) gives general powers to local governments to regulate the "improper" use of land include the authority to put a stop to quarrying operations in any area if such activity poses a nuisance, is likely to create a nuisance, or is considered to be dangerous to the residents of the area (section 195, read with the Sixth Schedule, item 23). Written permission is required from the local authorities before "digging" can be carried out in public land (Sixth Schedule, item 22).

Local governments may also prepare and implement schemes to prevent pollution, including dust or other substances emitted from stone crushing machines (section 195, read with the Sixth Schedule, item 48). Local councils may frame by-laws to regulate the excavation of "earth, stone or other material" (section 192(2), read with the Fifth Schedule, item 34).

Quarrying or blasting in a manner that is dangerous to those passing by or living in the vicinity is punishable with a maximum penalty of three years' imprisonment and/or a fine of 15,000 rupees, in addition to a fine of 1,000 rupees for every day that the offence continues to be committed (section 141(2) (a), read with the Fourth Schedule, part I, item 28). Excavating earth, stone or any other material within a specified distance from a residential area, and "digging" on public land without permission from the relevant authorities, are punishable with an immediate fine but repeat offenders may also incur imprisonment for up to six months and/or a fine of 5,000 rupees (section 141(2)(c), read with the Eighth Schedule, items 11 and 45).

The **Sindh Coal Authority Act 1993 (No VI)** regulates the exploration, mining and processing of coal. The Authority prepares schemes, advises the provincial government, publishes research, and promotes joint ventures, particularly with foreign investors (section 4).

The **Sindh Industrial and Mineral Development Corporation Act 1988 (No. VII)** establishes the Industrial and Mineral Development Corporation, an autonomous body that plans and implements programmes for the development of mining and industry (section 3). For the purposes of this law, minerals are defined as "all minerals excluding mineral oil and natural gas" (section 2(j)).

No framework legislation exists to implement federal policy on the subject, or to set out guidelines for exploring, exploiting and closing sites where minerals and petroleum products are extracted. Federal law contains no provisions to mitigate the substantial environmental impacts of mineral exploration.

5.4.3 Energy

Energy is one of the few sectors where recent legislation includes provisions for environmental protection. According to Article 157 of the Constitution, the federal government may construct or install thermal power plants, grid stations and inter-provincial transmission lines anywhere in the country. The powers of provincial governments with respect to electricity, as specified in Article 157, include levying taxes on consumption, determining tariffs for distribution, constructing powerhouses and grid stations, and installing intra-provincial transmission lines.

Under the **Pakistan Environmental Protection Act 1997** (**PEPA),** the **Environmental Protection Agency Review of Initial Environmental Examination and Environmental Impact Assessment Regulations 2000 (SRO 339(I)/2000 dated 13 June 2000),** requires the submission of an IEE and EIA to the Federal Agency for energy generation. These regulations, framed under Section 33 of PEPA, require that specified types of energy generation undergo prior environmental assessment. Schedule I lists the types of projects related to energy (Section B) that must undergo a prior IEE while Schedule II lists the types of projects related to energy (Section A) that require a prior EIA.

The **Regulation of Generation, Transmission and Distribution of Electric Power Act 1997** establishes the National Electric Power Regulatory Authority (Section 3). The Authority is given exclusive responsibility for regulating the provision of electric power services, but provincial governments may construct power houses and grid stations, lay transmission lines for use within the province, and determine the tariff for distribution of electricity within the province (Section 7). The act requires licensing for the generation (Section 15), transmission (Sections 16–19) and distribution (Sections 20–23) of electrical power. License holders are required to follow performance standards, including "safety, health and environmental protection instructions issued by the Authority or any government agency" (Section 21(2)(f)). The Authority must encourage the development of industry standards and uniform codes of conduct for generation, transmission and distribution facilities, including for construction practices and standards (Section 35).

5.4.4 Land

Land Reforms Act 1997 and **Land Reforms Regulation 1972** may apply to tenant rights and resettlement**. The Sindh Tenancy Act 1950 (No. XX)** regulates the relationship between landlords and agricultural tenants, and spells out the conditions under which various tenancy arrangements persist (sections 4–15). The law provides certain safeguards with regard to land and agricultural labour. For example, tenants who have "improved" the land are entitled to compensation if they are evicted (section 15).

The **Land Acquisition Act 1894 (No. 1)** regulates the acquisition of land for public purposes. The Act does not define the term 'public purposes'. Land may be acquired for a "Company which is engaged or is taking steps for engaging itself in any industry or work which is for a public purpose" (section 40(1)(aa)). Compensation is to be provided in cash, in the form of an alternative land allocation, or through other equitable arrangements (section 31). The law provides for a preliminary enquiry to survey land and assess its suitability, allowing government officers to bore into the subsoil, dig trenches, and cut down or clear standing crops and "jungle" areas (section 4).

Under the **Sindh Local Government Ordinance 2001 (No. XXVII) (SLGO),** discharging dangerous chemicals, flammable materials or "hazardous or offensive articles[s]" onto public land is an offence punishable with a maximum of three years' imprisonment and/or a fine of 15,000 rupees, in addition to a penalty of 1,000 rupees for each day the offence continues (section 141, read with the Fourth Schedule, part I, items 8 and 21).

5.4.5 Wildlife and Protected Areas

The Pakistan Environmental Protection Agency Review of Initial Environmental Examination and Environmental Impact Assessment Regulations 2000 SRO 339(I)/2000 dated 13 June 2000, issued under section 33 of PEPA 1997, empower the "Federal Agency" to designate "environmentally sensitive areas", and to issue guidelines related to projects planned for these areas (section 21). Such projects are required to undergo a prior EIA (schedule II, part I). The relationship between "environmentally sensitive areas" that may be established by the federal government and protected areas established under provincial laws is not specified.

The **Sindh Wildlife Ordinance 1972** does not provide for the conservation of wildlife habitat, the protection of breeding populations of wild animals, or the promotion of research required to establish the parameters for such activities. Nor does it accommodate the country's obligations under various international treaties and agreements concerning the conservation of biodiversity, the protection of migratory species and the trade in endangered species. The limited protections afforded to specified wildlife species are further weakened by the fact that broad exemptions may be granted by government officials in a variety of situations to allow prohibited activities.

In 2001, the protection clauses of the 1972 Ordinance were further limited through the promulgation of two Amendment Ordinances. New provisos were added to sections 14(3) and 15(4), allowing the 5. Natural Resources 43 government to permit the laying of underground pipelines "using construction techniques other than blasting" in a wildlife sanctuary or national park, and exempting from the provisions of sections 14 and 15 "any activity" in sanctuaries or national parks that is connected with the "exploration or production of oil or gas". Such operations must not "permanently disturb" wildlife or the environment, and must be undertaken in accordance with an environmental impact assessment (EIA), as defined in PEPA 1997. No mention is made of how the impact of such activities is to be mitigated.

Pakistan is a party to the World Heritage Convention but no natural heritage sites have been declared in this country. Despite the fact that there are 10 Ramsar sites in Sindh, there is no provincial legislation governing the conservation of wetlands.

5.4.6 Water

The **Sindh Water Management Ordinance 2002**, provides for the control of toxic substances and pollution in water sources, and specifies penalties for such offences. Similar provisions are also made in the **Sindh Local Government Ordinance 2001** where penalties are lower, as well as in **PEPA 1997**, where the penalties are higher. Moreover, the **Sindh Wildlife Protection Ordinance 1972, Forest Act 1927, Sindh Irrigation Act 1879, Canal and Drainage Act 1873, and Pakistan Penal Code 1860** all contain provisions related to the pollution or contamination of specified water sources. Penalties in these older laws are lower still, and suggest that offences committed in certain areas, such as forests, may not be dealt with in the same manner as offences committed, for example, in urban areas.

Under **Sindh Local Government Ordinance 2001 (No. XXVII) (SLGO),** discharging dangerous chemicals, or "hazardous or offensive article[s]" into a public watercourse is an offence, punishable with a maximum of three years' imprisonment and/or a fine of 15,000 rupees in addition to a fine of 1,000 rupees for each day the offence continues (section 141, read with the Fourth Schedule, part I, items 8 and 21). The same penalties apply to industrial or commercial operations that fail to prevent effluent from "mixing up [sic] with the water supply" (section 141, read with the Fourth Schedule, part I, items 9 and 25).

Under Section 8 of the **Sindh Fisheries Ordinance 1980 (No. III)** the discharge of untreated sewage, "effluence [sic]" and factory waste into "any waters" is prohibited; all such waste must be treated so that it is "harmless for fish and other aquatic life".

Conservation and sustainable use of water are not covered by provincial law, despite the fact that comprehensive legislation governing the sector has been enacted as recently as the year 2002 (**Sindh Water Management Ordinance 2002 (No. XL))**

5.4.7 Cultural Heritage

The **Sindh Cultural Heritage (Preservation) Act 1994 (No. XII)** gives the government power to compulsorily acquire protected heritage (any premises or objects of archaeological, architectural, historical, cultural or national value) that is in danger of being destroyed, and such acquisition is carried out as a "public purpose" under **the Land Acquisition Act 1894 (section 12).**

Maximum penalties under this Act, for destroying, removing, injuring, altering or defacing protected heritage extend to three years' imprisonment and/or a fine of 100,000 rupees (section 18).

5.5 World Bank, IFC and Equator Principles

The World Bank group has developed and promulgated its own set of International Finance Corporation guidelines with respect to environment, health and safety (EHS) which provide examples of Good International Industry Practice (GIIP). Should one of the World Bank Group be involved in a project the EHS Guidelines are applied as this is required by their policies and procedures. The Guidelines contain performance standards which are generally more stringent than local standards in the developing world.

In 2007 an extensive review of the Guidelines occurred updating the previous standards. The IFC has produced EHS Guidelines for industry sectors including mining which includes open pit mining and milling (December 2007) and EHS Guidelines for Coal Processing, including power generation (April 2007). These are to be found at Appendix B. Environmental quality standards have also been developed for a range of indicators such as air quality and noise, also at Appendix B. The air quality standards are particularly relevant to this project since they introduce the standards of PM_{10} and PM_{25}, which are not covered in the Pakistan NEQS.

There are also eight Performance Standards covering:

- Indigenous People;
- Cultural Heritage;
- Land Acquisition and Involuntary Resettlement;
- Labour and Working Conditions;
- Community Health, Safety and Security;
- Pollution Prevention and Abatement
- Social and Environmental Assessment and Management Systems; and

- Biodiversity Conservation and Sustainable Resource Management.

The Equator Principles are a 'benchmark for the financial industry to manage social and environmental issues in project financing'. The Equator Principles Financial Institutions (EPFIs) have adopted these Principles in order to ensure that the projects they finance are developed in a manner that is socially responsible and reflect sound environmental management practices. By doing so, negative impacts on project-affected ecosystems and communities should be avoided where possible, and if these impacts are unavoidable, they should be reduced, mitigated and/or compensated for appropriately. The Equator signatories will not provide loans to projects where the borrow cannot demonstrate adherence to the Principles.

There are ten Principles:

- Principle 1: Review and Categorisation
- Principle 2: Social and Environmental Assessment
- Principle 3: Applicable Social and Environmental Standards
- Principle 4: Action Plan and Management System
- Principle 5: Consultation and Disclosure
- Principle 6: Grievance Mechanism
- Principle 7: Independent Review
- Principle 8: Covenants
- Principle 9: Independent Monitoring and Reporting
- Principle 10: EPFI Reporting

As part of their review of a project's expected social and environmental impacts, EPFIs use a system of social and environmental categorisation, based on IFC's environmental and social screening criteria, to reflect the magnitude of impacts understood as a result of assessment. These categories are:

- **Category A** – Projects with potential significant adverse social or environmental impacts that are diverse, irreversible or unprecedented;
- **Category B** – Projects with potential limited adverse social or environmental impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures; and
- **Category C** – Projects with minimal or no social or environmental impacts.

In essence, should the project be expected to comply with World Bank Standards the environmental standards required will be more stringent than local Pakistan standards and the social issues to be dealt with will be much more stringent. This is particularly relevant since it will be necessary to relocate some small settlements currently located on the mine site. Depending on the classification of the project Category A, B or C the level of scrutiny by the bank and measures expected to be taken by the proponent will be more onerous.

5.6 Estimated Cost of an Environmental Report on the Area and the Mine

An environmental and social baseline report will be required prior to the establishment of any project in the area. The content of the baseline report has been discussed in Chapter three of this report.

Prior to the baseline study a site visit to fully define the scope of the study will be required. Local support and translation for the site visit will be required. During the visit contact will be made with the local and federal authorities to discuss their expectations and, in addition, contact with relevant NGOs will be established. The scoping study will also allow full evaluation of the quality of potential in-country environmental and social consultants. It is expected that the majority of baseline studies will be carried out by in-country specialists but for some investigations it may be necessary to use expatriate expertise.

A very preliminary estimate of costs to carry out a baseline study is provided below. A more accurate estimate can be provided following the scoping visit.

Task	**Estimated Duration (days elapsed time)**	**Estimated Cost**
Wardell Armstrong International have completed the scoping study and are undertaking the base line study using a local environmental consultancy	21	£20,000
Environmental baseline – including field work, reporting and review (two visits for ecologists summer and winter) Assume: 7 days on site for each specialist, preparation and write up time, travel and review	60 days first survey 200 days for second survey	£120,000
Social baseline – including field work data collection, reporting and review Assume: 4 people, 10 days on site inc travel, preparation time, write up and review time (inc expenses)	60	£17,000
Environmental and Social Baseline Report		**£157,000**

Table 28: Preliminary Cost Estimate to carry out an environmental and social baseline study

5.7 Estimated Cost of EIA

The EIA for submission to the appropriate authorities would include the baseline studies that have been identified in Section 5.6 above. The content of the EIA was discussed in Section 5.3 of this report.

Should the proponent require bank funding the report will need to be prepared to World Bank Standards and reference the Equator Principles if the funding bank is an Equator signatory. The funding bank will require oversight of and input to the EIA. In that circumstance, the bank will nominate external experts to review the content of the EIA – the environmental and

the social components. The review is likely to include a field visit and comment on the draft EIA before it is submitted.

The full scope of the EIA can only be identified following a scoping study and advice as to whether or not the proponent wishes the EIA to be prepared to World Bank standards. Those standards require extensive scrutiny of the social impacts of the project and these will require more attention than if the proponent merely desires to pass the Pakistan standards.

It has been assumed in estimating the cost of the EIA that the proponent will require an EIA able to pass the requirements of the World Bank/IFC standards. The estimated cost of the EIA is shown below:

Assumptions:

1. Scoping study and baseline data collection as per Section 5.7 above;
2. Project management of the EIA by UK based project manager;
3. EIA as described in Section 5.3 above. Review and EIA preparation by UK based team;
4. Project information supplied by the proponent to the environment team.
5. In country visits by project manager throughout the life of the EIA;
6. Liaison with bank representatives through the bank due diligence process;
7. Attendance at and preparation for the public hearing;
8. Duration of the project – 18 months.

It is important to recognise that this initial estimate of cost is for the EIA approval only and is provided without the benefit of the scoping study which will be necessary to refine the costing. The cost does not include obtaining any other approvals from the Pakistan authorities for the operation of the mine or power plant such as exploration and mining licences, land acquisition or employers permissions. It is assumed these will be negotiated by local employees of the proponent due to the extensive legal and commercial aspects involved.

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6 POWER PLANT

6.1 Introduction

Dargo Associates Ltd commissioned Mr. Alf Thomas of Mott MacDonald Ltd to undertake a pre-feasibility study for the proposed lignite fired power station to be located on the Thar Coal field in Pakistan.

The scope of work includes the following items:

- Determine the appropriate technology for a 300MWe (net) lignite fired power station based upon the coal quality data provided by Client;
- Estimate the amount of lignite required;
- Estimate the capital cost of the plant;
- Estimate the operating costs of the power station within the terminal points provided by Dargo Associates Ltd.
- Provide a block layout diagram for the power plant;

6.2 Available coal fired power generation technologies

6.2.1 General

In this section, the technologies that are available for generating electricity by burning lignite in units with a net output of 300 MWe are considered.

The following technologies have been considered to determine the most appropriate and available technology to be used in Pakistan are:

- Conventional boilers with either sub-critical or supercritical steam conditions;
- Atmospheric CFB boilers with either sub-critical or supercritical steam conditions;
- Pressurised fluidised bed boiler (PFB);
- Integrated gasification combined cycle (IGCC).

6.2.2 Conventional fired boilers

Currently there are approximately 215 conventional boiler-turbine units installed around the World with gross outputs greater than 200 MWe that are operational and burn lignite as the main fuel.

Of this 215, there are 54 units in Australia which have a maximum outputs up to 500 MWe. The super critical cycle is normally considered economically viable for units of 500 MWe and larger. All the above units operate with sub-critical steam conditions. There are 25 units in North America with maximum outputs up to 800 MWe and again all of these units use sub-critical steam conditions. In Europe, there are 136 units with a maximum output up to 1,000 MWe. Of these 136 units, 121 are sub-critical and 15 are supercritical.

It should be noted that sub-critical units typically have turbine inlet steam conditions of 160 bar and 538ºC whereas supercritical units have steam conditions greater than 225 bar and 538ºC.

There are more than 400 supercritical and 1400 sub-critical units around the World that have outputs greater than 200 MWe gross. These units burn a wide range of fuels and include the previously mentioned lignite fired units.

Except for the different steam conditions to the steam turbine, the key difference between conventional sub-critical and a supercritical units is the construction of the boiler.

Sub-critical boilers are provided with steam drums to separate the steam from the steam and water mixture that is generated in the furnace tubes. The steam then passes to the superheaters where the temperature is increased, by heat transfer from hot gases in the boiler, from the saturation temperature to a temperature that is, typically, 538 C. The water that remains after separation in the steam drums is then mixed with feed water from the economisers and then re-circulated through the furnace tubes.

The generation of a steam and water mixtures within the furnace tubes always occurs at boiler pressures that are operated below the critical pressure of 220.64 bar.

The generation of a steam and water mixture in the furnace tubes does not occur in supercritical boilers when they operate above the critical pressure and hence, a steam drum is not required during operation at high outputs. However, during start-up when the boiler pressure is below the critical pressure, a steam separator vessel is used to separate the steam from the steam and water generated in the furnace tubes.

Except for the difference in the provision of a steam drums compared with a steam separators, the construction of the remaining boiler parts are broadly similar for both sub-critical and supercritical boilers.

In addition to the previously described difference between sub-critical and supercritical boilers, the following points are also relevant;

- Supercritical units have higher thermal efficiencies than sub-critical units which reduces fuel costs and emissions to the atmosphere;
- Sub-critical and supercritical units have similar minimum operating loads and similar two-shift capability;
- Supercritical units can increase their output at a faster rate than sub-critical units, 5% of rated output per minute compared to 3% per minute for sub-critical units. As a consequence, supercritical units can be started and can reach their rated output in shorter times than sub-critical units.
- The availability of supercritical units appears to be similar to that of sub-critical units although this viewpoint is not universally accepted.
- The O&M costs of both sub-critical and supercritical units are similar.

It is our understanding that there are six conventional fired units currently in operation in Pakistan and that these each have outputs of 210 MWe gross and burn oil and/or gas. It is also understood all these units are sub-critical with typical steam conditions of 170 - 190 bar and 530°C.

Since there is relevant experience with sub-critical conventional units in Pakistan and extensive world experience with this technology; this technology is considered to be the most suitable for use with a lignite fuel source in Pakistan.

6.2.3 Atmospheric CFB boilers

Atmospheric CFB technology has been commercially used for power generation since the 1980s. The technology is considered mature, at least for units with outputs up to 340 MWe gross.

The following list indicates the key experiences world-wide with CFB boilers:

- One 460 MWe coal fired boiler at Lagisza in Poland which is expected to start commercial operation in 2009;
- One 340 MWe boiler at Sulcis in Italy;
- One 300 MWe boilers at Northside in USA;
- Two 250 MWe lignite fired boilers at Red Hills, USA;
- Two 250 MWe boilers at Guayama, Puerto Rico;
- One 250 MWe boiler at Provence, France; and
- Three 235 MWe and three 262 MWe lignite fired boilers at Turow, Poland.

All the boilers listed above have sub-critical conditions except for the boiler at Lagisza, which has supercritical conditions.

CFB boilers have the following advantages over conventional coal fired plants:

- Capability of burning a wide variety of coals including lignite, coal tailings, low grade and high sulphur coals.

  It should be noted that CFBs are designed for a particular fuel and once built, they operate most efficiently with the fuel for which they were designed.

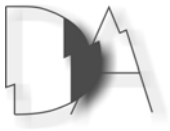
  As a consequence, the claimed advantage of fuel flexibility for CFB boilers can be misleading because there is only flexibility to design a particular CFB boiler for a particular range of fuels and not operate a CFB, once it has been built, with a wider range of fuels than it was originally designed for.

- The direct injection of limestone into the fluidised bed offers the opportunity for economic removal of SO_x without the need for flue gas desulphurisation and consequently reduce costs.

This technology is considered to be commercially proven, in the output range up to 340 MWe gross which encompasses the illustrative plant output considered in this study, although experience of the larger units is limited. For this reason, we consider that this technology is appropriate for use in Pakistan. Our experience on another CFB project has shown that staff with experience of conventionally fired boilers can, with training and participation in commissioning and early operation, successfully operate CFB boilers. As a consequence, this technology is considered in the following sections of this report; but only for sub-critical steam conditions.

6.2.4 Pressurised fluidised bed boiler (PFB)

PFB boilers have the same advantages over conventional fired boilers as previously described for CFB boilers.



However, PFB boilers have the following additional advantages over CFB boilers:

- PFB boilers are more compact;
- PFB boilers have higher efficiencies than sub-critical conventional coal fired boilers and CFB boilers;
- PFB boilers have better sulphur capture efficiency than CFB boilers because of the elevated furnace pressure

All the current PFB demonstration units have outputs of approximately 80 MWe capacity, but two larger units that have started up at Karita and Osaki in Japan have outputs of 360 MWe and 250 MWe capacity respectively. The Karita boiler operates at supercritical steam conditions whilst the Osaki operates at sub-critical conditions.

This technology is not presently considered to be commercially proven and is therefore not considered further in this study.

6.2.5 Integrated gasification combined cycle (IGCC)

A number of demonstration units with typical outputs of 250 MWe are being operated in Europe and the USA for research and development purposes. Most are of the entrained flow type and are oxygen blown.

All the current coal-fuelled demonstration plants are subsidised. The European plants are subsidised as part of the Thermie programme, and in the US, the Department of Energy is part funding the design and construction and some of the operating costs. As a consequence such demonstration projects are not intended to compete with other power generators.

There are many claims for the success of IGCC projects. However, our opinion is that the IGCC technology is not commercially proven and is not considered further in this study.

6.2.6 Most appropriate available technology

Based on the above information, in our opinion the most appropriate available technology for use in Pakistan for unit sizes of 300 MWe (net) is the sub-critical conventional fired technology. However, it is noted that sub-critical CFB technology is also commercially proven in the output range considered in this study and is therefore a viable alternative. Our experience on another CFB project has shown that staff with experience of conventionally fired boilers can, with training and participation in commissioning and early operation, successfully operate CFB boilers.

6.3 Coal and Ash

6.3.1 Coal Properties

The proximate analysis and calorific values used in this study are shown in Table 11.

Boiler efficiencies and hence the quantities of coal consumed are based on the ultimate analysis of the coal also shown in Table 11.

6.3.2 Ash Properties

Based on data shown in Table 11, it is anticipated that the Thar coal will be of the low erosion, high fouling, low slagging type. Further, more extensive sampling and testing will be required to confirm the coal type in terms of erosion, fouling and slagging characteristics.

The quality of the ash makes it suitable for disposal either in the spoil from the Mine or for sale as filler for cement.

6.3.3 Coal Pre-Drying

There is considerable interest in pre-drying lignite using steam heated fluidised beds before the lignite is injected into the boiler. Some of the benefits claimed for this type of pre-drying are:

- Increased power plant efficiency;
- Utilisation in the power plant of water released by pre-drying;
- Reduced boiler size.

It should be noted that to realise these benefits, it is necessary to integrate the drying processes with those for power generation.

RWE, one of the leaders for this technology, give in their publication dated January 2008, the following details of their experience with fluidised bed driers:

Plant details	Output t/h of raw coal
WTA 1 Frechen	53 (coarse grain drying)
WTA 1 Niederaussem	170 (coarse grain drying)
WTA 2 Frechen	27 (fine grain drying)
WTA 2 Niederaussem (construction complete 2008	210 (fine grain drying)
WTA Hazelwood (planned)	140 (fine grain drying)

Table 29: RWE Experience with Steam Fluidised Bed Driers

For the illustrative power plant that is the subject of this study, the raw coal consumption is 240 t/h.

It is considered that, based on the above experience, fluidised bed drying cannot yet be considered as a commercially proven technology. However, this position may change, in the near future when the WTA2 Niederaussem plant becomes operational.

Even though the fluidised bed driers are not yet commercially proven, there are other conventional driers, such as steam heated rotary driers that could be used as an alternative. The benefits of using such rotary driers have been considered in this study based on drying the coal from 46 % to 12 %. The value of 12 % has been selected because this is the value cited by RWE in their publications.

For the purpose of this study, the only integration between the driers and the power plant is the provision of steam turbine extraction for heating and the receiving of the associated condensate.

It is estimated 0.35 kg of steam at 10 bar and 180 ºC will be required to reduce the moisture content of 1 kg of raw coal from 46% to 12%. It has also been estimated that extracting this steam from the steam turbine will reduce the gross output of the turbine by approximately 10 MWe. The impact of drying the coal on turbine performance will need further consideration at the more detailed feasibility study stage.

6.4 Plant Performance

6.4.1 Turbine Performance

For the purposes of this report, we have based the turbine performance on that of one of our current 360 MWe (gross) coal fired projects which is representative of the performance under guarantee conditions. The performance data was provided by the Chinese turbine supplier and reflects the equipment that can be offered by that supplier under his licence agreement with his European licensor.

It should be noted, that the European licensor would be able to offer a turbine with an improved performance but, as stated by that licensor, current market expectations on delivery schedule and prices mean that these can only be satisfied by the Chinese supplier.

The turbine performance data is based on using mechanical draft cooling towers. Since, this study is for pre-feasibility purposes, we have not modified this data to reflect the relatively, small changes that would be caused by alternative cooling technologies. Such changes should be considered at the feasibility study stage.

At the feasibility study stage, detailed performance calculations should be performed so that the impact of condenser cooling and coal drying technologies can be more accurately established.

6.4.2 Boiler Performance

Using the coal data in Table 11, the boiler efficiencies have been calculated based on the net calorific values. These calculations have been made in accordance with the principles in ASME PTC 4.1 and MM's own calculation procedures using the parameters shown in the following table.

Parameter	Units	Value
Furnace excess air	%	20.00
Airheater leakage	%	7.00
Airheater outlet gas temperatures	ºC	For CFBs - 125 For conventional fired boilers - 153 with 12% H_2O and 160 with 46% H_2O
Proportion of carbon in coal unburned	%	For CFBs - 3.7 and 0.8 for conventional fired boilers
Ambient conditions	ºC/%RH(1)	30 / 50

(1) RH means relative humidity

Table 30: Parameters used for boiler efficiency calculations

The boiler efficiencies for both CFB boilers and conventional firing with both "as-received" coal with 46% H_2O and "dried" coal with 12% H_2O are shown in the following table.

Parameter	Unit	Conventional Firing		CFB Boilers	
		With drying	Without drying	With drying	Without drying
Efficiency	%	92.06	90.33	91.11	90.39

Table 31: Boiler efficiencies based on NCV

The variations in the efficiencies shown in the preceding table are not caused by the variation of a single parameter but by the combination of variations in a number of parameters. These parameters include the following:

- Airheater outlet gas temperatures;
- Unburned carbon losses;
- Chemical reactions associated with sulphur capture in the CFBs.

From the preceding table it is evident that, as would be expected, the efficiencies of the boilers burning dried coal with 12 % H2O are higher than those burning "as-received" coal with 46 % H2O.

6.4.3 Auxiliary Power Consumptions

For a conventional coal fired power plant with FGD and either mechanical draft cooling towers or air cooled condensers, the power absorbed by the auxiliary equipment is typically 9.3% of the gross power.

For a coal fired CFB power plant that uses limestone injection into the furnace to control SO_x emissions with either mechanical draft cooling towers or air cooled condensers, the power absorbed by the auxiliary equipment is also typically 9.3% of the gross power. The reason for this is that the power absorbed by the FGD equipment of the conventional fired plant and which is not required for the CFB plant is approximately matched by the increased power of the boiler HP blowers and air compressors used for limestone transportation that is required by CFB but not needed by the conventionally fired plant.

To achieve a net output of 300 MWe, without coal drying, the corresponding gross outputs for the conventional and CFB plants should both be 330 MWe. As previously stated in this report

the effect of using steam extracted from the turbine for drying the coal is, for constant turbine inlet conditions, to reduce the gross power by approximately 10 MWe.

To simplify all performance and cost calculations in this report, all calculations are based on a gross unit output of 330 MWe without drying and 340 MWe with coal drying. The net power outputs are calculated based on auxiliary power consumptions of 9.3%, respectively, for both the conventional fired and CFB plants.

6.4.4 Overall Plant Performance

The overall plant performances for both CFB boilers and conventional firing with both "as-received" coal with 46% H_2O and "dried" coal with 12% H_2O are shown in the following table.

Parameter	**Unit**	**Conventional Firing**		**CFB Boilers**	
		With drying	**Without drying**	**With drying**	**Without drying**
Gross output	MWe	340.0[2]	330.0	340.0[2]	330.0
Auxiliary power	%	9.3	9.3	9.3	9.3
Net Power	MWe	298.4	299.3	298.4	299.3
Boiler Efficiency on NCV	%	92.06	90.33	91.11	90.39
Fuel consumption	kg/s	38.298	66.598	38.700	66.566
	Mt/year	0.97	1.67	0.98	1.68
Net heat rate on NCV	kJ/kWh	10099	9959	10206	9955
Net efficiency on NCV	%	35.65	36.15	35.28	36.16

Table 32: Overall Plant Performance

The annual lignite consumptions in the preceding table are based on 7 000 operating hours per year at the rated output of 300 MWe.

From the preceding table it is evident that the efficiencies of the plants burning dried coal with 12 % H_2O are lower than those burning "as-received" coal with 46 % H_2O. It appears than the increase in boiler efficiency caused by burning dried coal is more than offset by the decrease in turbine output caused by using turbine extraction for coal pre-drying in conventional rotary driers.

As previously stated the turbine performance used as the basis for the estimated overall plant performances are based on guarantee conditions when the turbine is considered to be in the "new and clean" condition. During the operation of the turbine there will be a deterioration or degradation in turbine heat rate and hence efficiency. The following table shows the typical degradation of turbine heat rate.

[2] See last paragraph section 6.4.3 for clarification

Commencement of Year	Gross Heat Rate Degradation (%)
Year 1	0.00%
Year 2	0.52%
Year 3	0.80%
Year 4	0.93%
Year 5 and thereafter	0.98%

Table 33: Estimate of gross heat rate degradation from the start of steam turbine operation

6.5 Limestone Consumptions

The limestone consumptions together with the ash and gypsum production rates for both CFB boilers and conventional firing with both "as-received" coal with 46% H_2O and "dried" coal with 12% H_2O are shown in the following table.

Parameter	Unit	Conventional Firing		CFB Boilers	
		With drying	Without drying	With drying	Without drying
Limestone consumption	kg/s	3.35	3.56	4.14	4.35
	t/year	84,420	89,712	104,328	109,620
Gypsum from FGD (1)	kg/s	4.92	5.23	-	-
	t/year	123,984	131,796	-	-
Ash from boiler (2)	kg/s	3.91	4.17	9.66	10.16
	t/year	98,532	105,084	243,432	256,032

(1) Gypsum also includes limestone not used in sulphur capture in the FGD plant.
(2) Ash from CFB boiler also includes the ash from the coal, unburned carbon, calcium sulphate from sulphur capture and limestone not used in sulphur capture whereas ash from the conventional boilers includes ash from the coal and unburned carbon.

Table 34: Limestone Consumptions and Gypsum and Ash Production Rates

The annual limestone consumptions and production rates for gypsum and ash in the preceding table are based on 7 000 operating hours per year at the rated output of 300 MWe.

It should be noted that the limestone consumptions have been calculated with calcium to sulphur ratios (by weight) of 1.8 for the FGD plant associated with conventionally fired plants and 2.2 for the CFB plants. As a consequence, the limestone consumptions for the CFB plants are higher than those for the conventional plants.

To simplify our calculations, we have assumed that all the sulphur in the coal will be released and converted to SO_2 and estimated the quantities of limestone necessary to capture all this SO_2 .

It is expected that the gypsum produced from the FGD will be sold to cement companies or be disposed in the pit. Further consideration of this issue should be an objective of the Feasibility Study.

6.6 Water Consumptions

The quality of the water available for the power plant is not fully defined. All that is known is that there could be 13 000 tonne/day of saline water available and an unknown quantity of

fresh water. As a consequence, there have been some difficulties in estimating the water losses from the cooling tower which will be the single biggest loss from the plant. However, some estimates of water losses have been made to determine if the available 13 000 tonne/day (150 kg/s) of raw water will be sufficient for the plant.

With an ambient air temperature of 30 C, a relative humidity of 50 % and a temperature rise over the condenser of approximately 7 C, the evaporative loss from a mechanical draft cooling tower will be 1.03 % of the total cooling water flow through the tower which it is estimated will be 153.0 kg/s including drift losses.

If reverse osmosis (RO) is used to desalinate the saline water for make up for the cooling tower then on the basis that there will be eight cycles of concentration within the cooling tower, the corresponding purge flow from the tower has been estimated as 21.8 kg/s. In addition, there will other estimated losses of 21.8 kg/s for boiler blowdown, FGD process water and other plant losses.

On this basis, the total required output from the RO plant will be 196.6 kg/s and the corresponding required saline water flow to the RO plant will be 294.9 kg/s. This quantity is more than twice the quantity of available saline water. In fact, even if the RO process is 100 % effective, the required raw water flow of 196.6 kg/s would still exceed that available.

Other processes for saline water desalination such multiple effect and multi stage flash, have been briefly investigated. However, it is considered that the specific cost of the water produced by such processes could be significantly higher than that produced by the RO process.

In order to make more accurate estimates of water losses, more detailed investigations will be required to establish the availability of greater quantities of saline water and the properties of this water.

For the purposes of this current study, we have assumed that air cooled condensers with mechanical draft will be used instead of mechanical draft cooling towers. The reason being that this method of cooling incurs no water losses. In addition, almost 90% of the dry cooling systems installed around the World are air cooled condensers.

On the basis of using air cooled condensers with mechanical draft, the estimated water losses are shown in the following table.

Parameter	Unit	Value
Boiler blowdown	kg/s	6.6
Demin. plant losses	kg/s	1.0
FGD process water	kg/s	12.5
Domestic water	kg/s	0.4
Service water	kg/s	1.4
RO plant losses	kg/s	11.0
Total losses	kg/s	32.9

Table 35: Plant water consumptions and losses

It should be noted that even with an air cooled condenser, a small RO plant will be required to provide for plant requirements. When preparing the preceding table it has been assumed that ash handling within the plant will use dry systems and that saline water only will be used for the final transport to the ash ponds.

6.7 Plant Layout

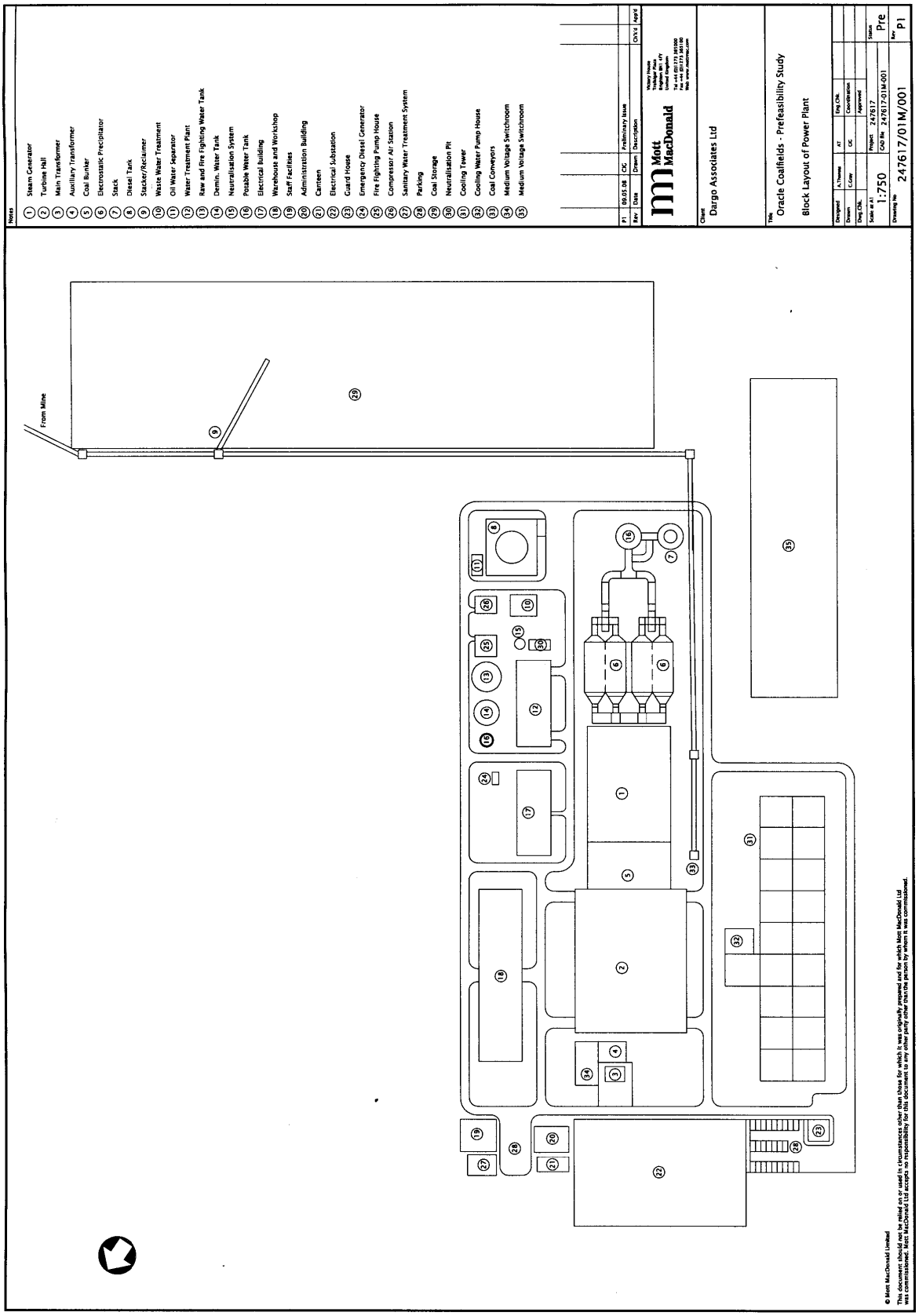


Figure 39: Block Layout Drawing

A block layout drawing of the plant is shown in Figure 46. This drawing is based on one of our current projects for a single 360 MWe (gross) coal fired plant. When preparing this layout it has been assumed that the limestone that is delivered to the plant will not require further processing before it can used.

6.8 Capital and Operating Costs

6.8.1 Capital Costs

The estimated capital costs shown in this report have been developed from the contract price (signed in January 2008) for one of our current 360 MWe (gross) coal fired plants. The contract price has been adjusted for differences in scopes and equipment configurations between the two plants. Such differences include 50 km of over land power line to the grid, spare parts, the reduced capacity of the RO plant and the consequent replacement of mechanical draft cooling tower with an air cooled condenser.

Within the period of this study, MM have been unable to obtain budget prices for conventional rotary driers and consequently the cost of coal drying equipment has been based on data available for fluidised bed driers. It is expected that the cost of conventional driers will be lower than that for fluidised bed driers.

Unit	Conventional Firing		CFB Boilers	
	With drying	Without drying	With drying	Without drying
US$ millions	681	624	652	596
US$ / kW	2005	1892	1917	1806

Table 36: Capital cost estimates

The previously stated capital costs do not include the cost of the land for the power plant and project development costs.

It should be noted that power plant prices have recently been increasing significantly. In part this is due to the increasing cost of raw materials and in part to market pressures caused by the increasing pressure on manufacturing capacity. As a consequence, further price increases could occur in the future. No considerations have been given in this respect to future potential cost increases.

6.8.2 Operating Costs

In 2004, MM investigated the costs of coal fired plants around the world and this investigation also included O&M costs. The O&M costs stated in this section are based on that 2004 investigation.

Based on MM's normal practice, O&M costs are separated into fixed costs and variable costs which are each described in the following subsections.

The allocation of operating costs into the fixed and variable cost categories is dependent on the scope of project, the scope of supply included in the O&M agreement and any service or long term maintenance agreements which are applicable. As a consequence, the specific cost figures for fixed and variable costs should be taken as indicative only, as they are representative only of those projects that have been investigated by MM.

6.8.2.1 Fixed Operating Costs

Fixed costs are those costs which are incurred by the owner regardless of the extent of plant operation. These typically include the following line items:

- Staff costs;
- Contractual costs including operator fees and any maintenance and support agreements;
- Plant insurance; and
- General management and administration costs (i.e. secretarial, site security, etc);

For the projects investigated by MM, the annual fixed cost element ranged between US$ 17 - 25 per kWe of gross power output.

6.8.2.2 Variable Operating Costs

Variable costs are the portion of O&M costs that are dependent on the extent of generation. These costs typically include the following line items:

- Electricity start up costs;
- Consumables (lubricants, chemicals for boiler dosing, bulk gases, etc);
- Ash and other solids treatment and disposal costs. This can be dependent on ash and solid quantities if they are sold rather than disposed of; and
- Spares required for routine maintenance.

For the projects investigated by MM, the annual variable cost element ranged between US$ 2.3-3.2 per MWh.

6.8.2.3 Total Operating Costs

For this study, specific fixed and variable operating costs of $ 20 per kW and $ 2.3 per MWh have been selected, respectively, as these are typical of plants in Asia. It should be noted that these costs are for plants that do not have FGD and do not have coal drying.

To take account of the effects of FGD and coal drying on the fixed and variable operating costs, the fixed costs have been increased by $ 7 and $ 2 per kW for FGD and coal drying respectively. In addition, the variable costs have been increased by $0.9 and $0.3 per MWh for FGD and coal drying respectively.

The following table shows the annual operating costs based on these specific estimated rates.

Parameter	Unit	Conventional Firing		CFB Boilers	
		With drying	Without drying	With drying	Without drying
Fixed	US$ millions	9.9	8.9	7.5	6.6
Variable	US$ millions	8.3	7.4	6.2	6.0
Total	US$ millions	18.2	16.3	13.7	12.6

Table 37: Annual Operating Costs as per 2008

It should be noted that the previously stated operating costs do not include the cost of coal and limestone. In addition, the variable operating costs are based on 7,000 operating hours per year at the rated output of 300 MWe.

6.9 Project Schedule

Based on a single EPC contract being awarded for the power plant, having due regard to the plant location and assuming that there are no delays to the power plant programme caused by the contracts for the off-site works, then the project schedule from contract award to the issue of the provisional acceptance certificate should be 36 months.

6.10 Concluding Remarks

Based on the results of this, it has been established that there is the most experience burning lignite in conventionally fired sub-critical boilers and that this is the technology, albeit burning oil and/or gas as the fuel source, that is used in existing power plants in Pakistan. As a consequence, this technology is considered the most appropriate for this proposed new power plant in Pakistan.

Atmospheric, sub-critical boilers in the range of gross outputs investigated in this study is considered to be a commercially proven technology and offers the opportunity of reduced capital and operating costs over conventional fired boilers with FGD. As a consequence, this technology is worthy of further consideration. Our experience on another CFB project has shown that staff with experience of conventionally fired boilers can, with training and participation in commissioning and early operation, successfully operate CFB boilers.

In this study, we have not optimised the plant performance and considered, in detail, the impact of coal drying technologies on plant performance. In addition, for equipment such as FGD, condenser cooling, coal drying and raw water treatment, our approach has been, generally, to select a suitable technology based on our experience. These matters will require further consideration at the feasibility study stage and will require discussions with potential equipment suppliers.

For this report very limited information is available regarding the coal and ash properties and no information has been made available regarding the raw water analyses and limestone properties. More detailed information will be required regarding these factors for the feasibility study.

7 RECOMMENDATIONS

The purpose of this report is to evaluate the financial viability of a combined lignite mine and power station, to identify those areas of the project that require further investigation and estimate the costs required to bring the project into operation.

The main finding of this report is that the mine/power station complex can be a profitable project.

Currently field work is being carried out to provide sufficient data for the technical input to the optimum mine design, together with a latest breakdown of equipment costs and operating costs to feed into the financial model on which to base the initial and future mine development as part of a fully bankable feasibility study.

The Mine design will require approximately 3 to 6 months and will be based on the latest subcrop drilling, which will identify the precise location of the mine excavation. It is recommended that the mine design should evaluate, with current prices, the option of using a crusher and conveyor/spreader system for overburden placement. More extensive use of conveyors should also be reviewed together with the then current availability of mining equipment and spares.

The latest geotechnical parameters and hydrogeological assessment will also be required for the mine design and efficient dewatering of the mine.

The Environmental and Social Impact Assessment is currently being undertaken. This must be done over a one-year period in order to incorporate all four seasons in the baseline study. The study will include all social and environmental impacts on the area and must be compliant with World Bank and International Finance Corporation standards as well as Equator Principles and Pakistan Environmental Regulations. The interim report is due in June 2011, and the final report will recommend all environmental protection measures required for the mine and the power station to comply with relevant standards.

It is recommended that the most appropriate technology for the power station will be a conventional, pulverised fuel fired, sub-critical steam conditions boiler. In order to fully estimate the costs of construction of the power plant, a detailed design study will be required. Also, the power station site must be fully assessed so that the required foundations works can be appropriately designed.

The ability of the local electrical grid to accept the power plant's output must also be assessed and the cost of constructing powers lines for transmission of the power to the national grid must be evaluated.

The lignite from Block VI of the Thar coalfield is of suitable quality for a number industrial uses, notably cement manufacture and small industrial heat generation or power generation. The lignite can be safely transported to sites located away from the mine complex, but may require drying for some applications. Lignite drying is being examined by visiting existing drying operations in Germany, and the cost of such a process is under review. The market for industrial uses of the lignite should be further studied and sales contracts established as soon as possible.

If there is potential for significant sales of lignite for industrial use, the production capacity of the mine could be increased and the cost of production thereby reduced due to economies of scale.

To take the current feasibility study to Bankable Document status, Oracle Coalfields plc will require legal and financial advisors in order to raise financing to bring the project to fruition. Technical advisors are also required for mining engineering and project management purposes.

The cost for the further work is shown in Table 38.

Studies & Advisors Fees	Cost	Sub Total
	£	£
Mine Design	250,000	
ESIA	160,000	
Hydrogeology	50,000	
Coal Market Study	50,000	
Total Studies	510,000	510,000
Legal Fees	250,000	
Financial Advisors	250,000	
Technical Advisors	300,000	
Total Advisors Fee	800,000	800,000
Total Studies & Advisors fee	1,310,000	1,310,000

Table 38: Cost of further work

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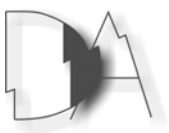
SBP 2011 (State Bank Pakistan)

www.sbp.gov.pk

9 GLOSSARY

Air dried basis or ad	The quality parameter reported as a proportion of the material after it has been dried. On this basis, moisture content is less, but all other parameters will be higher.
Aquiclude	A stratum that is impervious to water
As Received basis or ar	The quality parameter reported as a proportion of the total material received
Ash	The mineral material left behind when lignite is burnt.
bar, bar(a)	pressure in bar, (absolute) 1 bar = 1 atmosphere
Bcm	Bank cubic metres the volume of matrial in-situ
Bench	A road round the edge fo the pit on which mining equipment moves.
Batter	The side of the excavated pit outside the limits of the coal, necessarily excavated to prevent the wall of the pit collapsing.
Batter Angle	The angle to the horizontal of the batter
BOP	Balance of plant
Calcium	An Alkaline Earth metal found in coal ash
Calliper	A geophysical tool that measures the diameter of a borehole
Calorific Value	Sometimes called Specific Energy, it is the amount of heat released when the lignite is burnt
Capex	Capital expenditure
CFB	Circulating fluidised bed
CO	Carbon monoxide
CO_2	Carbon dioxide
Cooper & Jacob Method	A standard for determining transmissivity of strata.
Core Sample	Coal collected from borehole cores, usually unweathered.
CV	Calorific value
DAF	Dry and Ash Free
degC	Degrees Centigrade temperature difference
DRD	Deep Rock Drilling, of Karachi
Dump Bench	A bench on which there is a dump station
EPC	Engineer Procure and Construct
ESP	Electrostatic precipitator
Exploration FGD	The examination of an area by means of surface geological mapping, geophysical techniques, the drilling of boreholes and sampling of coals. Flue Gas Desulphurisation
Fixed Carbon	The material remaining after moisture, ash and volatile matter has been removed. This is a mathematical calculation, since the ash cannot be removed.
Fluidised Bed Combustion (FBC)	The burning of fuel on a bed subjected to an upward gas flow which causes the bed to be suspended resulting in the transference of heat at very high rates.

GA	Geoscience Associates Ltd
GCV	Gross calorific value (=HHV, Higher heating value)
Geological Losses	Losses to be deducted from measured reserves due to geological constraints, e.g. faults, washouts, seam splitting.
Geophysics	An exploration technique using a variety of physical examinations such as seismic, nuclear and calliper
Gross Calorific Value	The amount of heat released in the laboratory testing for calorific value, when the temperature of all the material and equipment is returned to ambient conditions. In this analysis, the latent heat of vaporisation of the water in the sample is released.
Groundwater	Water below the ground surface and below the water table.
GSP	Geological Survey of Pakistan
H_2	Hydrogen
H_2O	Water or steam
H_2S	Hydrogen sulphide
H_2SO_4	Sulphuric acid
Hazen Method	A standard method to determine the permeability of strata.
HHV	Higher heating value
HP	High pressure
HTW	High Temperature Winkler gasifier
Hydrogeology	The study of underground water and its control
IGCC	Integrated [coal] gasification combined cycle
Interburden	Rock between coal seams
JORC	Joint Ore Reserve Committee. An Australian body responsible for determining acceptable standards for reserve and resource estimation. The JORC Code is widely accepted as a standard by many investor institutions including the London Stock Exchange.
kg	kilogramme
kJ	kilo-Joule
kWh	kilowatt-hour
LHV	Lower heating value
Lignite	A low rank coal characterised by a high moisture content. A coal is considered a lignite if it contains >20% *in situ* moisture.
LP	Low pressure
Magnesium	An Alkaline Earth metal found in coal ash
mg/Nm^3	milligrammes per Normal metre-cubed
Mineable Reserves	The tonnages of *in situ* coal contained in seams or sections of seams for which sufficient information is available to enable detailed or conceptual mine planning.
MM, MML	Mott MacDonald Ltd.



Moisture	The water in the lignite.
Mol	Refers to molecular weight
mscmd	million standard cubic meters per day
Mt	Million tonnes.
Mtpa	Million tonnes per annum.
MW	Megawatt, sometimes with 'e' or 'th' to indicate electrical or thermal
MWh	Megawatt-hour
N_2	Nitrogen
NCV	Net calorific value (= LHV, Lower heating value)
Net Calorific Value	The calculated amount of heat release by the lignite when it is burnt and the products and equipment remain above 100^{o}C. In this case the latent heat of vaporisation of the water in the lignite is not released, so the result is lower than Gross CV. Net CV is the amount of heat released in real combustion in a boiler.
Nitrogen	Also undesirable but the result of burn nitrogen in coal and lignite is more complex. It is not usually considered a pollutant in lignite because lignite is very reactive and burns at a lower temperature than bituminous coal. At lower temperatures, less nitrogen oxides or NO_x are formed.
Nm^3	cubic metres measured under 'Normal' conditions (atmospheric pressure and 0 ^{o}C)
NO	Nitric oxide
NO_2	Nitrous oxide
NOx	Nitrogen oxides
O&M	Operation and Maintenance
O_2	Oxygen
^{o}C	Degrees Centigrade temperature level
Opencast mining	Surface mining of coal seams which may be overlain by variable amounts of overburden.
Overburden	Rock overlying the coal seams that must be removed to expose the coal.
Parting(s)	Layer(s) of rock within the coal seam.
PC	Pulverised coal
Permeability	The ability of water to flow through an aquifer.
PM	Particulate matter
Porosity	Property of a rock possessing pores or voids.
ppmV	parts per million by volume
Proximate Analysis	The Determinations of Moisture, Ash, Volatile Matter and Fixed Carbon
Rank	Coals range in composition and properties according to the degree of coalification. Rank is used to indicate this level of alteration: the greater the alteration, the higher the rank. Lignites are low rank coals and anthracites are high rank.

Reserves	The quantity of mineral that is calculated to lie within given boundaries and can be demonstrated to be economically recoverable. The reserves are described dependent on certain predetermined limits in respect of thickness, depth, quality, and other geological and economic factors.
Resources	The amount of coal in place before exploitation.
Ripping	The amount of coal in place before exploitation.
RWE	Rheinbraun Engineering (a division of RWE AG of Germany
SCA	Sindh Coal Authority
scf	cubic feet measured under 'Standard' conditions (atmospheric pressure and $60^{o}F$)
SCR	Selective catalytic reduction [of NOx]
Seismic Survey	Production of acoustic or seismic signals when an explosive device is introduced into the ground and which are reflected or refracted back to recording equipment at the surface.
Shovel	Electric and hydraulic types, for overburden and coal removal.
Sm^3	cubic metres measured under 'Standard' conditions (atmospheric pressure and $15^{o}C$)
SO_2	Sulphur dioxide
SO_3	Sulphur trioxide
Sodium	An Alkali metal found in lignite ash
Sonde	A geophysical device lower into a borehole to take measurements of the strata.
SP	Spontaneous potential.
Spontaneous Combustion	Ignition of coal or lignite by the natural adsorption of oxygen on to the surface of coal to promote oxidation and produce heat. The propensity to spontaneous combustion is related to rank, moisture content and size of coal.
SPR	Single point resistance.
Stripping Ratio (SR)	The ratio of the amount of overburden to be removed to uncover 1 tonne of workable coal or lignite.
Sulphur	An undesirable element always associated with coal of any rank, including lignite. During combustion it produces sulphur dioxide or SO_2 sometimes called SO_x since it has a variable composition as a product of combustion.
T & S	Truck and Shovel
T, T	metric tonne
TDS	Total dissolved solids.
TES Bretby Ltd.	A Division of Environmental Services Group Ltd of the UK. TES Bretby is the leading provider of coal analytical services in the UK.
Total Moisture	The water content of the lignite as it is mined
Truck	Large capacity vehicle usually employed for transporting overburden material from the mine to dump areas; size usually tailored to size of earthmoving equipment; not used on public highways.

Truck and Shovel	Surface mining method using haulage trucks and shovel excavators
USGS	United States Geological Survey
Volatile Matter	The gas, liquids and tars that are vaporised when lignite is heated without air.
Water Table	Upper limit of the saturated zone below ground surface.

PART IV

FINANCIAL INFORMATION ON THE GROUP

Section A: Accountant's Report on the financial information on the Group

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Large Firm of the Year 2010

Price Bailey
CHARTERED ACCOUNTANTS

14 April 2011

The Directors
Oracle Coalfields Plc
Richmond House
Broad Street
Ely
Cambridgeshire
CB7 4AH

and

The Directors
Libertas Capital Corporate Finance Limited
16 Berkeley Street
London W1J 8DZ

Dear Sirs

Oracle Coalfields plc ("the Company" and with its subsidiary, "the Group")

We report on the financial information set out in Section B of Part IV relating to Oracle Coalfields plc ("the Company" and with its subsidiary, "the Group"). This financial information has been prepared for inclusion in the AIM Admission Document dated 14 April 2011 ("the Admission Document") on the basis of the accounting policies set out in the notes to the financial information.

Responsibilities

The report is required by Paragraph (a) of Schedule Two of the AIM Rules for Companies and is given for the purpose of complying with that requirement and for no other purpose.

Save for any responsibility arising under Paragraph (a) of Schedule Two of the AIM Rules for Companies to any person as and to the extent provided, and save for any responsibility that we have expressly agreed in writing to assume, to the fullest extent permitted by law we do not assume responsibility and will not accept any liability to any other person for any loss suffered by any such other person as a result of, arising out of, or in connection with this report or our statement, required by and given solely for the purposes of complying with Paragraph (a) of Schedule Two of the AIM Rules for Companies, consenting to its inclusion in the Admission Document.

The Directors of the Company are responsible for preparing the financial information on the basis of preparation set out in note 1 to the financial information and in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union.

It is our responsibility to form an opinion as to whether the financial information gives a true and fair view for the purposes of the Admission Document and to report our opinion to you.

Basis of opinion

We conducted our work in accordance with Standards for Investment Reporting issued by the Auditing Practices Board in the United Kingdom. Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. It also included an assessment of significant estimates and judgements made by those responsible for the preparation of the financial information and whether the accounting policies are appropriate to the entity's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial information is free from material misstatement whether caused by fraud or other irregularity or error.

Opinion

In our opinion, the financial information gives, for the purposes of the Admission Document, a true and fair view of the state of affairs of the Group as at the dates stated and of its losses and cash flows for the years then ended in accordance with the basis of preparation set out in note 1 to the financial information and in accordance with IFRSs as adopted by the European Union and has been prepared in a form consistent with the accounting policies adopted in the Company's latest annual accounts.

Declaration

For the purposes of Paragraph (a) of Schedule Two of the AIM Rules for Companies we are responsible for this report, as part of the Admission Document and declare that we have taken all reasonable care to ensure the information contained in this report is, to the best of our knowledge, in accordance with the facts and contains no omission likely to affect its import. This declaration is included in the Admission Document in compliance with Schedule Two of the AIM Rules for Companies.

Yours faithfully

PRICE BAILEY LLP

Section B: Financial information relating to the Group for the period from 1 January 2008 to 31 December 2010

Financial information of the Group

Consolidated income statement

	Notes	*2010* £	*2009* £	*2008* £
CONTINUING OPERATIONS				
Revenue	2	—	—	—
Other operating income		—	111	—
Administrative expenses		(222,674)	(236,157)	(228,944)
OPERATING LOSS BEFORE EXCEPTIONAL ITEMS		(222,674)	(236,046)	(228,944)
Exceptional items	3	—	—	(235,669)
OPERATING LOSS		(222,674)	(236,046)	(464,613)
Finance income	5	1,085	816	12,595
LOSS BEFORE INCOME TAX	6	(221,589)	(235,230)	(452,018)
Income tax	7	—	—	—
LOSS FOR THE YEAR		(221,589)	(235,230)	(452,018)
Loss attributable to:				
Owners of the parent		(221,589)	(235,230)	(452,018)
Earnings per share expressed in pence per share:	9			
Basic		-0.15	-0.20	-0.41
Diluted		-0.13	-0.16	-0.34

Consolidated statement of comprehensive income

	2010 £	*2009* £	*2008* £
LOSS FOR THE YEAR	(221,589)	(235,230)	(452,018)
OTHER COMPREHENSIVE INCOME			
Exchange difference on consolidation	1,724	(16,143)	8,112
Income tax relating to other comprehensive income	—	—	—
OTHER COMPREHENSIVE INCOME FOR THE YEAR,NET OF INCOME TAX	1,724	(16,143)	8,112
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	(219,865)	(251,373)	(443,906)
Total comprehensive income attributable to:			
Owners of the parent	(219,865)	(251,373)	(443,906)
Non-controlling interests	—	—	—

Consolidated statement of financial position

	Notes	*2010* £	*2009* £	*2008* £
ASSETS				
NON-CURRENT ASSETS				
Intangible assets	10	855,830	492,131	409,722
Property, plant and equipment	11	2,814	3,072	4,678
Loans and other financial assets	13	63,645	63,186	68,029
		922,289	558,389	482,429
CURRENT ASSETS				
Trade and other receivables	14	36,093	12,322	25,844
Cash and cash equivalents	15	1,506,475	5,859	143,154
		1,542,568	18,181	168,998
TOTAL ASSETS		2,464,857	576,570	651,427
EQUITY				
SHAREHOLDERS' EQUITY				
Called up share capital	17	184,211	122,360	114,046
Share premium	18	3,284,291	1,309,043	1,068,406
Translation Reserve	18	(4,563)	(6,287)	9,856
Retained earnings	18	(1,134,797)	(913,208)	(677,978)
		2,329,142	511,908	514,330
Non-controlling interests	16	16,029	16,029	16,029
TOTAL EQUITY		2,345,171	527,937	530,359
LIABILITIES				
CURRENT LIABILITIES				
Trade and other payables	19	119,686	48,633	121,068
TOTAL LIABILITIES		119,686	48,633	121,068
TOTAL EQUITY AND LIABILITIES		2,464,857	576,570	651,427

Consolidated statement of changes in equity

	Called up share capital £	*Profit and loss account* £	*Share premium* £	*Translation reserve* £	*Non-controlling interests* £	*Total equity* £
Balance at 1 January 2008	108,546	(225,960)	642,844	1,744	16,029	543,203
Changes in equity						
Issue of share capital	5,500	—	425,562	—	—	431,062
Loss for the year	—	(452,018)	—	—	—	(452,018)
Other comprehensive income	—	—	—	8,112	—	8,112
Balance at 31 December 2008	114,046	(677,978)	1,068,406	9,856	16,029	530,359
Changes in equity						
Issue of share capital	8,314	—	240,637	—	—	248,951
Loss for the year	—	(235,230)	—	—	—	(235,230)
Other comprehensive income	—	—	—	(16,143)	—	(16,143)
Balance at 31 December 2009	122,360	(913,208)	1,309,043	(6,287)	16,029	527,937
Changes in equity						
Issue of share capital	61,851	—	1,975,248	—	—	2,037,099
Loss for the year	—	(221,589)	—	—	—	(221,589)
Other comprehensive income	—	—	—	1,724	—	1,724
Balance at 31 December 2010	184,211	(1,134,797)	3,284,291	(4,563)	16,029	2,345,171

Consolidated statement of cash flows

	Notes	*2010* £	*2009* £	*2008* £
Cash flows from operating activities				
Cash generated from operations	1	(174,777)	(294,282)	(372,232)
Exchange rate fluctuation on cash held		37	(421)	(1,098)
Net cash from operating activities		(174,740)	(294,703)	(373,330)
Cash flows from investing activities				
Purchase of intangible fixed assets		(361,776)	(91,682)	(282,985)
Purchase of tangible fixed assets		(437)	—	—
Interest received		470	139	10,753
Net cash from investing activities		(361,743)	(91,543)	(272,232)
Cash flows from financing activities				
Proceeds of share issue		2,318,040	249,401	453,750
Cost of share issue		(280,941)	(450)	(22,688)
Net cash from financing activities		2,037,099	248,951	431,062
Increase/(decrease) in cash and cash equivalents		1,500,616	(137,295)	(214,500)
Cash and cash equivalents at beginning of year	2	5,859	143,154	357,654
Cash and cash equivalents at end of year	2	1,506,475	5,859	143,154

Notes to the consolidated cash flow statement

1. Reconciliation of loss before income tax to cash generated from operations

	2010 £	*2009* £	*2008* £
Loss before income tax	(221,589)	(235,230)	(216,349)
Exceptional items	—	—	(235,669)
Finance income	(1,085)	(816)	(12,595)
	(222,674)	(236,046)	(464,613)
(Increase)/Decrease in trade and other receivables	(23,156)	14,199	(19,098)
Increase/(Decrease) in trade and other payables	71,053	(72,435)	111,479
Cash absorbed by operations	(174,777)	(294,282)	(372,232)

2. Cash and cash equivalents

The amounts disclosed on the statement of cash flow in respect of cash and cash equivalents are in respect of these statement of financial position amounts:

	2010 £	*2009* £	*2008* £
Cash and cash equivalents	1,506,475	5,859	143,154

Notes to the financial information

1. Accounting policies

Basis of preparation

The financial information includes the consolidated financial statements of the Company and its subsidiary, Sindh Carbon Energy Limited.

The financial information has been prepared solely for the purpose of the Admission Document and does not constitute statutory accounts within the meaning of section 434 of the Companies Act 2006.

The Group's accounting policy regarding the treatment of exchange differences arising on the consolidation of overseas subsidiary undertakings was amended for the year ended 31 December 2010 so that net exchange differences classified as equity are separately tracked in a translation reserve rather than being included in retained earnings. The Group has also updated the accounts and disclosure in the two comparative periods ensuring the accounting policies set out below have been applied consistently to all periods presented in this financial information.

Going concern

The Directors have considered the cash flow requirements of the Group over the next 18 months. If the Group is to continue its explorations it may be necessary to raise additional funds. Whilst it is difficult in the current economic downturn to generate the extra funds required, the Directors expect to meet the funding requirements and therefore believe that the going concern basis is appropriate for the preparation of the financial information.

Compliance with accounting standards

The financial information has been prepared in accordance with International Financial Reporting Standards and IFRIC interpretations adopted for use in the European Union ("IFRS") and with those parts of the Companies Act 2006 applicable to reporting groups under IFRS.

The financial information has been prepared under the historical cost convention.

Significant accounting judgements, estimates and assumptions

The preparation of the financial information requires management to make judgements, estimates and assumptions that affect the amounts reported for revenues and expenses during the year and the amounts reported for assets and liabilities at the statement of financial position date. However, the nature of estimation means that the actual outcomes could differ from those estimates.

The key sources of estimation uncertainty that have a significant risk of causing material adjustment to the carrying amounts of assets and liabilities within the next financial period are the measurement of any impairment on intangible assets and the estimation of share-based payment costs. The Group determines whether there is any impairment of intangible assets on an annual basis. The estimation of share-based payment costs requires the selection of an appropriate model, consideration as to the inputs necessary for the valuation model chosen and the estimation of the number of awards that will ultimately vest.

Basis of consolidation

The consolidated financial information incorporate the financial information of the Company and entities controlled by the Company (its subsidiaries) made up to 31 December each year. Control is achieved where the Company has the power to govern the financial and operating policies of an investee entity so as to obtain benefits from its activities.

Business acquisitions have been accounted for in accordance with IFRS 3, 'Business Combinations'. Fair values are attributed to the Group's share of net assets. Where the cost of acquisition exceeds the fair values attributed to such assets, the difference is treated as purchased goodwill and is capitalised. In the case of subsequent acquisitions of minority interests, the difference between the consideration payable for the additional interest in the subsidiary and the minority interest's share of the assets and liabilities reflected in the consolidated statement of financial position at the date of acquisition of the minority interest has been treated as goodwill.

Intangible fixed assets – exploration costs

Expenditure on the acquisition costs, exploration and evaluation of interests in licences, including related finance and administration costs, are capitalised. Such costs are carried forward in the statement of financial position under intangible assets and amortised over the minimum period of the expected commercial production of coal in respect of each area of interest where:

a) such costs are expected to be recouped through successful development and exploration of the area of interest or alternatively by its sale;

b) exploration activities have not yet reached a stage that permits a reasonable assessment of the existence or otherwise of economically recoverable reserves and active operations in relation to the areas are continuing.

An annual impairment review is carried out by the Directors to consider whether any exploration or development costs have suffered impairment in value where a site has been abandoned or confirmed as no longer technically feasible.

Accumulated costs in respect of areas of interest that have been abandoned are written off to the income statement in the year in which the area is abandoned.

Exploration costs are carried at cost less any provision for impairment.

Property, plant and equipment

Depreciation is provided at the following annual rates in order to write off each asset over its estimated useful life.

Motor vehicles	– 20% on reducing balance
Computer equipment	– 30% on reducing balance

Financial instruments

Financial assets and liabilities are recognised on the statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

- Cash and cash equivalents comprise cash held at bank and short term deposits
- Trade payables are not interest bearing and are stated at their nominal value
- Equity instruments issued by the Company are recorded at the proceeds received except where those proceeds appear to be less than the fair value of the equity instruments issued, in which case the equity instruments are recorded at fair value. The difference between the proceeds received and the fair value is reflected in the share based payments reserve.

Taxation

Current taxes are based on the results shown in the financial information and are calculated according to local tax rules, using tax rates enacted or substantially enacted by the statement of financial position date.

Deferred tax is recognised in respect of all timing differences that have originated but not reversed at the statement of financial position date.

Foreign currencies

Assets and liabilities in foreign currencies are translated into sterling at the rates of exchange ruling at the statement of financial position date. Transactions in foreign currencies are translated into sterling at the rate of exchange ruling at the date of transaction. Exchange differences are taken into account in arriving at the operating result.

Profit and losses of overseas subsidiary undertakings are translated into sterling at average rates for the year. The balance sheets of overseas subsidiary undertakings are translated at the rate ruling at the statement of financial position date. Differences arising from the translation of Group investments in overseas subsidiary undertakings are recognised as a separate component of equity.

Net exchange differences classified as equity are separately tracked and the cumulative amount disclosed as a translation reserve.

The principal place of business of the Group is the United Kingdom with sterling being the functional currency. Funds are advanced to Pakistan as required to finance the exploration costs which are payable in rupees.

Share-based payment transactions

Where equity settled share options are awarded to employees, the fair value of the options at the date of grant is charged to the income statement over the vesting period. Non-market vesting conditions are taken into account by adjusting the number of equity instruments expected to vest at each statement of financial position date so that, ultimately, the cumulative amount recognised over the vesting period is based on the number of options that eventually vest. Market vesting conditions are factored into the fair value of all options granted. As long as all other vesting conditions are satisfied, a charge is made irrespective of whether market vesting conditions are satisfied. The cumulative expense is not adjusted for failure to achieve a market vesting condition.

Where terms and conditions of options are modified before they vest, the increase in the fair value of the options, measured immediately before and after the modification, is also charged to the income statement over the remaining vesting period.

Where equity instruments are granted to persons other than employees, the income statement is charged with the fair value of goods and services received.

Cash and cash equivalents

Cash and cash equivalents for the purpose of the cash flow statement comprise cash and bank balances.

Standards and interpretations applied

In preparing the financial information the Group has reviewed and adopted all standards and interpretations, effective for the year commencing 1 January 2010.

New Standards and Interpretations adopted for the year commencing 1 January 2010 with no effect on the financial information

The following new and revised Standards and Interpretations for the year commencing 1 January 2010 have been adopted in the financial information. Their adoption has not had any significant impact on the amounts reported in the financial information but may affect the accounting for future transactions or arrangements:

- IAS 1 Presentation of Financial Statements (revised 2009) – annual review of IFRSs
- IAS 7 Statement of Cash Flows (revised 2009) – annual review of IFRSs
- IAS 17 Leases (amended 2009) – annual review of IFRSs
- IAS 36 Impairment of Assets (amended 2009) – annual review of IFRSs
- IAS 39 Financial Instruments (amended 2008) – amendments for eligible hedged items
- IAS 39 Financial Instruments (amended 2009) – amendments for embedded derivatives and the annual review of IFRSs
- IFRS 2 Share-based Payments (amended 2009) – amendments relating to annual review of IFRSs and group cash-settled share-based payment transaction
- IFRS 3 Business Combinations (amended 2008) – comprehensive revision on applying the acquisition method
- IFRS 5 Non-current Assets Held for Sale and Discontinued Operations (amended 2008) – annual review of IFRSs

- IFRS 3 Non-current Assets Held for Sale and Discontinued Operations (amended 2009) – annual review of IFRSs
- IFRS 8 Operating Segments (amended 2009) – annual review of IFRSs
- IFRIC 9 Reassessment of Embedded Derivatives – annual review of IFRSs
- IFRIC 16 Hedges of a Net Investment in a Foreign Operation – annual review of IFRSs
- IFRIC 17 Distributions of Non-cash Assets to Owners
- IFRIC 18 Transfers of Assets from Customers

New standards and interpretations not yet adopted

A number of new standards, amendments to standards and interpretations are not yet effective for the year commencing 1 January 2010 and have not been applied in preparing the financial information:

- IAS 1 Presentation of Financial Statements (amended 2010)
- IAS 12 Income Taxes (amended 2010)
- IAS 24 Related Party Disclosures (amended 2009)
- IAS 27 Consolidated and Separate Financial Statements (amended 2010)
- IAS 32 Financial Instruments (amended 2010)
- IAS 34 Interim Financial Reporting (amended 2010)
- IFRS 3 Business Combinations (amended 2010)
- IFRS 7 Financial Instruments (amended 2010)
- IFRS 9 Financial Instruments (amended 2009)
- IFRIC 13 Customer Loyalty Programmes (amended 2010)
- IFRIC 14 AS19 The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction (amended 2009)
- IFRIC 19 Extinguishing Financial Liabilities with Equity Instruments

The Directors do not consider that the implementation of any of these new standards will have a material impact upon reported income or reported net assets.

2. Segmental reporting

The principal activity of the group is the exploration for coal in Pakistan. All expenses are in respect of this one activity and there are no business segments requiring separate disclosure.

3. Exceptional items

During the year ended 31 December 2008 the Group incurred costs of £235,669 in respect of preparing for a listing on the AIM market. Due to the economic downturn in 2008 the Directors took the decision to place the application on 'hold'. Included in the costs are £215,669 legal and professional fees, together with £20,000 paid to the auditors in the capacity as reporting accountants.

4. Employees and Directors

	2010 £	*2009* £	*2008* £
Wages and salaries	77,000	89,969	98,876
Social security costs	5,781	8,590	9,873
	82,781	98,559	108,749

The average monthly number of employees during the year was as follows:

	2010	*2009*	*2008*
Directors	3	3	3

	2010 £	*2009* £	*2008* £
Directors' remuneration	77,000	89,969	98,876

5. Net finance income

	2010 £	*2009* £	*2008* £
Finance income:			
Deposit account interest	470	139	9,830
Other loan interest	615	677	2,765
	1,085	816	12,595

6. Loss before income tax

The loss before income tax is stated after charging:

	2010 £	*2009* £	*2008* £
Depreciation – owned assets	758	768	1,170
Auditors' remuneration	9,800	11,100	7,250
Foreign exchange differences	—	—	785
Auditors' other services – reporting accountant for AIM application	—	—	20,000

The depreciation charges shown above have been capitalised as exploration costs by the subsidiary company in accordance with the accounting policy.

7. Income tax

Analysis of the tax charge

No liability to UK corporation tax arose on ordinary activities for the years ended 31 December 2010, 31 December 2009 and 31 December 2008.

Factors affecting the tax charge

The tax assessed for the year is higher than the standard rate of corporation tax in the UK. The difference is explained below:

	2010 £	*2009* £	*2008* £
Loss on ordinary activities before tax	(221,589)	(235,230)	(452,018)
Loss on ordinary activities multiplied by the standard rate of corporation tax in the UK of 28% (2009 – 28%; 2008 – 30%)	(62,045)	(65,864)	(135,605)
Effects of:			
Interest capitalised in subsidiary	1,113	892	1,859
Potential deferred taxation on losses for year	60,932	78,210	133,746
Effect of change of rate of tax	—	(13,436)	—
Expenses disallowed for tax purposes	—	198	—
Total income tax	—	—	—

Tax effects relating to effects of other comprehensive income

	2010 £	*2009* £	*2008* £
Exchange difference on consolidation			
Gross	1,724	(16,143)	8,112
Tax	—	—	—
Net	1,724	(16,143)	8,112

The Group has estimated losses of £1,120,729 (2009 – £903,115; 2008 – £671,779) to carry forward against future trading profits. The overseas subsidiary has not yet generated profits or losses and there is no charge for foreign taxation for the year (2009 and 2008 – nil).

8. Loss of parent company

As permitted by Section 408 of the Companies Act 2006, the profit and loss account of the parent company is not presented as part of the financial information. The parent company's loss for the year ended 31 December 2010 was £ (217,614) (2009 – £(232,044); 2008 – £ (445,819)).

9. Earnings per share

Basic earnings per share is calculated by dividing the earnings attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the period.

Diluted earnings per share is calculated using the weighted average number of shares adjusted to assume the conversion of all dilutive potential ordinary shares.

Reconciliations are set out below.

	Earnings £	*2010 Weighted average number of shares*	*Per share amount pence*
Basic EPS			
Earnings attributable to ordinary shareholders	(221,589)	145,644,977	-0.15
Effect of dilutive securities			
Options granted	—	23,122,384	—
Diluted EPS			
Adjusted earnings	(221,589)	168,767,361	-0.13

	Earnings £	*2009 Weighted average number of shares*	*Per share amount pence*
Basic EPS			
Earnings attributable to ordinary shareholders	(235,230)	120,492,015	-0.20
Effect of dilutive securities			
Options granted	—	26,242,054	—
Diluted EPS			
Adjusted earnings	(235,230)	146,734,069	-0.16

	Earnings £	*2008 Weighted average number of shares*	*Per share amount pence*
Basic EPS			
Earnings attributable to ordinary shareholders	(452,018)	111,566,826	-0.41
Effect of dilutive securities			
Options granted	—	23,204,959	—
Diluted EPS			
Adjusted earnings	(452,018)	134,771,785	-0.34

10. Intangible assets

	Exploration costs £
COST	
At 1 January 2008	120,391
Additions	284,155
Exchange differences	5,176
At 31 December 2008	409,722
Additions	124,551
Exchange differences	(42,142)
At 31 December 2009	492,131
Additions	358,307
Exchange differences	5,392
At 31 December 2010	855,830

11. Property, plant and equipment

	Motor vehicles £	*Computer equipment*	*Total*
COST			
At 1 January 2008	6,500	—	6,500
Additions	—	—	—
Exchange differences	810	—	810
At 31 December 2008	7,310	—	7,310
Additions	—	—	—
Exchange differences	(1,311)	—	(1,311)
At 31 December 2009	5,999	—	5,999
Additions	—	437	437
Exchange differences	124	—	124
At 31 December 2010	6,123	437	6,560
DEPRECIATION			
At 1 January 2008	1,330	—	1,330
Charge for year	1,170	—	1,170
Exchange differences	132	—	132
At 31 December 2008	2,632	—	2,632
Charge for year	768	—	768
Exchange differences	(473)	—	(473)
At 31 December 2009	2,927	—	2,927
Charge for year	627	131	758
Exchange differences	61	—	61
At 31 December 2010	3,615	131	3,746
NET BOOK VALUE			
At 31 December 2008	4,678	—	4,678
At 31 December 2009	3,072	—	3,072
At 31 December 2010	2,508	306	2,814

12. Investments

The parent company's investment at the reporting dates in the share capital of its subsidiary were as following:

Subsidiary

Sindh Carbon Energy Limited

Country of incorporation: Pakistan
Nature of business: Coal exploration and mining

Class of shares:	*% holding*
Ordinary	80.00

13. Loans and other financial assets

	Other loans £
At 1 January 2008	65,596
Exchange movement	2,433
At 31 December 2008	68,029
Exchange movement	(4,843)
At 31 December 2009	63,186
Exchange movement	459
At 31 December 2010	63,645

Oracle Coalfields plc entered into a joint venture agreement with Sindh Koela Limited for the exploration of coal through a project company, Sindh Carbon Energy Limited incorporated in Pakistan, dated 6 September 2006 and amended on 17 June 2008. Under the terms of the agreement Sindh Koela Limited is entitled to receive 20 per cent. of the issued shares in Sindh Carbon Energy Limited and these shares are funded by a loan from Oracle Coalfields plc. The obligation to fund the 20 per cent. shareholding is capped at 5,000,000 shares of PKR 10 per share. The loan accrues interest on a daily basis at a rate of 9 per cent. per annum. The loan is unsecured and repayable from 50 per cent. of dividends due to Sindh Koela Limited from Sindh Carbon Energy Limited, when the joint venture starts to generate revenues, or repayable in full on any early transfer of shares by Sindh Koela Limited in Sindh Carbon Energy Limited.

There is a loan of PKR 2,000,000, amounting to £16,029 as at 31 December 2010 (2009 – £16,029; 2008 – £16,029), was made by Oracle Coalfields plc to Sindh Koela Limited, representing Sindh Koela Limited's initial 20 per cent. shareholding of 200,000 shares of PKR 10 per share.

Further loans were made to Sindh Koela Limited to fund initial expenditure in Pakistan on behalf of the Group as follows:

As at 31 December 2010 there is a loan of £25,000 (2009 – £25,000; 2008 – £25,000) from Oracle Coalfields plc to Sindh Koela Limited. The loan is interest free, unsecured and is not due for repayment until the joint venture starts to generate revenues.

As at 31 December 2010 there is a loan of PKR 3,000,000, amounting to £22,616 (2009 – £22,157; 2008 £27,000) from Sindh Carbon Energy Limited to Sindh Koela Limited. The loan is interest free, unsecured and is not due for repayment until the joint venture starts to generate revenues.

In addition to the loans made by the Oracle Coalfields plc to Sindh Koela Limited as detailed above, Oracle Coalfields plc made loans of £235,000 (2009 – £30,980; 2008 – £166,000) to its subsidiary company during the year ended 31 December 2010 and the amount outstanding at that reporting date was £438,336 (2009 – £209,336; 2008 – £172,356). Interest accrues on a daily basis at a rate of 1 per cent. over the Bank of England base rate. The loan is unsecured and although it is repayable on demand, it is unlikely to be repaid until the project becomes successful and the subsidiary starts to generate revenue.

14. Trade and other receivables

	2010 £	*2009* £	*2008* £
Current:			
Other receivables	5,186	3,497	2,830
VAT	25,602	2,753	21,825
Prepayments and accrued income	5,305	6,072	1,189
	36,093	12,322	25,844

15. Cash and cash equivalents

	2010 £	*2009* £	*2008* £
Bank deposit account	1,447,680	—	130,807
Bank accounts	58,795	5,859	12,347
	1,506,475	5,859	143,154

16. Non-controlling interests

The minority interest of £16,029 represents 20 per cent. of the issued share capital of the subsidiary which is held by Sindh Koela Limited, a company in which the Group is involved in a joint venture arrangement. Since the subsidiary was incorporated for the joint venture, there are no pre-acquisition reserves or goodwill.

17. Called up share capital

	2010 £	*2009* £	*2008* £
Allotted, issued and fully paid 184,211,000 (2009 – 122,359,668; 2008 – 114,046,334) Ordinary shares of 0.1p each	184,211	122,360	114,046

43,351,332 Ordinary shares of 0.1p each were allotted as fully paid for cash at a premium of 2.9p per share during 2010. 18,500,000 Ordinary shares of 0.1p each were allotted as fully paid for cash at a premium of 5.4p per share during 2010.

8,313,334 Ordinary shares of 0.1p each were allotted as fully paid for cash at a premium of 2.9p per share during 2009.

5,500,000 Ordinary shares of 0.1p each were allotted as fully paid for cash at a premium of 7.25p per share during 2008.

The number of shares in issue are as follows:

	2010	*2009*	*2008*
At 1 January	122,359,668	114,046,334	108,546,334
Issued during the year	61,851,332	8,313,334	5,500,000
At 31 December	184,211,000	122,359,668	114,046,334

18. Reserves

	Retained earnings £	*Share premium* £	*Translation reserve* £	*Totals* £
At 1 January 2008	(225,960)	642,844	1,744	418,628
Deficit for the year	(452,018)		—	(452,018)
Cash share issue	—	448,250	—	448,250
Cost of share issue	—	(22,688)	—	(22,688)
Exchange translation difference	—	—	8,112	8,112
At 31 December 2008	(667,978)	1,068,406	9,856	400,284
Deficit for the year	(235,230)	—	—	(235,230)
Cash share issue	—	241,087	—	241,087
Cost of share issue	—	(450)	—	(450)
Exchange translation difference	—	—	(16,143)	(16,143)
At 31 December 2009	(913,208)	1,309,043	(6,287)	389,548
Deficit for the year	(221,589)	—	—	(221,589)
Cash share issue	—	2,256,189	—	2,256,189
Cost of share issue	—	(280,941)	—	(280,941)
Exchange translation difference	—	—	1,724	1,724
At 31 December 2010	(1,134,797)	3,284,291	(4,563)	2,144,931

19. Trade and other payables

	2010 £	*2009* £	*2008* £
Current:			
Trade payables	60,367	20,409	108,524
Social security and other taxes	1,434	—	3,773
Other payables	904	17,219	702
Accruals and deferred income	56,981	11,005	8,069
	119,686	48,633	121,068

20. Financial instruments

The Group financial instruments comprise cash and cash equivalents, loan investments and financial assets and various items such as trade receivables, trade payables, accruals and prepayments that arise directly from its operations.

The main purpose of these financial instruments is to finance the Group's operations. The Board regularly reviews and agrees policies for managing the level of risk arising from the Group's financial instruments which are summarised as follows

Liquidity Risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's policy throughout the year has been to ensure that it has adequate liquidity to meet its liabilities when due by careful management of its working capital.

The following tables illustrate the contractual maturity profiles of its financial liabilities, all of which are repayable within one year, as at 31 December:

	2010 £	*2009* £	*2008* £
Trade and other payables	118,252	48,633	117,295
Tax liabilities	1,434	—	3,773
	119,686	48,633	121,068

Credit Risk

The Group principal financial assets are the cash and cash equivalents and taxation receivable as recognised in the statement of financial position, and which represent the Group's maximum exposure to credit risk in relation to financial assets.

Oracle Coalfields plc has made an unsecured loan of £438,336 (2009 – £209,336; 2008 – £172,356) to its subsidiary Sindh Carbon Energy Limited. Although it is repayable upon demand, it is unlikely to be repaid until the project becomes successful and the subsidiary starts to generate revenue.

Capital Management

The Group's capital consists wholly of ordinary shares. The Board's policy is to preserve a strong capital base in order to maintain investor, creditor and market confidence and to safeguard the future development of the business, whilst balancing these objectives with the efficient use of capital.

Market Risk

Market risk is the risk that changes in market prices, such as commodity prices, foreign exchange rates, interest rates and equity prices will affect the Group's income or value of it's holdings in financial instruments.

Commodity Price Risk

The principal activity of the Group is the development of a coal mining property in Pakistan and the principal market risk facing the Group is an adverse movement in the commodity price of coal. Any long term adverse movement in this price would affect the commercial viability of the project.

21. Related party disclosures

Oracle Coalfields plc has during 2010 accrued interest receivable of £3,975 (2009 – £3,186; 2008 – £6,199) and £615 (2009 – £677; 2008 – £2,765) in respect of loans made to Sindh Carbon Energy Limited and Sindh Koela Limited respectively. The interest was outstanding at the year end and is included within other receivables.

Key management personnel compensation

The Directors' and key management personnel of the Group during the year were are follows:

Mr S Khan (*Chairman and chief executive officer*)
Mr A C R Scutt (*Non-executive director*)
Mr M R Stead (*Non-executive director*)

The aggregate compensation made to key management personnel of the Group is set out below:

	2010 £	*2009* £	*2008* £
Short-term employee benefits	77,000	89,969	98,876
Post-employment benefits	—	—	—
Termination benefits	—	—	—
Share-based benefits	—	—	—
	77,000	89,969	98,876

Key management personnel equity holdings

Details of key management personnel beneficial interests in the fully paid Ordinary shares of the Company and share options held are unchanged during the year and are disclosed in the Directors Report.

22. Reconciliation of movements in shareholders' funds

	2010 £	*2009* £	*2008* £
Loss for the financial year	(221,589)	(235,230)	(452,018)
Proceeds of share issue	2,318,040	249,401	453,750
Cost of share issue	(280,941)	(450)	(22,688)
Exchange translation difference	1,724	(16,143)	8,112
Net reduction of shareholders' funds	1,817,234	(2,422)	(12,844)
Opening shareholders' funds	511,908	514,330	527,174
Closing shareholders' funds	2,329,142	511,908	514,330

23. Share based payment transactions

Oracle Coalfields plc has a share option programme that entitles the holders to purchase shares in the Company with the options exercisable at the price determined at the date of granting the option. The terms and conditions of the grants are as follows; there are no vesting conditions to be met and all options are to be settled by the issue of shares:

Grant date	*Number of instruments*	*Contractual life of options*
13 February 2007	20,080,000	5 years
12 June 2008	5,662,054	2 years (expired)

The number and weighted average exercise prices of share options is as follows:

	Weighted average exercise price 2010	*Number of options 2010*	*Weighted average exercise price 2009*	*Number of options 2009*	*Weighted average exercise price 2008*	*Number of options 2008*
Outstanding at 1 January	6.89p	25,742,054	6.89p	25,742,054	5.00p	20,080,000
Granted during the period	—	—	—	—	14.00p	5,662,054
Expired during the period	14.00p	(5,662,054)	—	—	—	—
Outstanding at 31 December	5.00p	20,800,000	6.89p	25,742,054	6.89p	25,742,054
Exercisable at 31 December	5.00p	20,800,000	6.89p	25,742,054	6.89p	25,742,054

The options outstanding at 31 December 2010 have exercise price of 5p (2008 and 2009 – range of 5p to 14p), and a weighted average remaining contractual life of 1.27 years (2009 – 1.85 years; 2008 – 2.85 years). During 2010 5,662,054 (2008 and 2009 – nil) share options expired unexercised with a weighted average exercise price of 14p. No share options were exercised during the year (2008 and 2009 – nil).

The fair value of services received and commission payable in return for share options granted is based on the fair value of share options granted, measured using a binomial lattice model, with the following inputs:

	Commission and services 2008	*Services 2007*
Fair value at grant date	0.1044p	0.0003p
Share price	1p	1p
Exercise price	14p	5p
Expected volatility	20%	20%
Option life	2 years	5 years
Risk-free interest rate	5%	5%

The expected volatility was determined by reviewing the actual volatility of the Company's share price since its listing on PLUS to the date of granting the option. In calculating the fair value, consideration was given to the market trends at the grant date of the option.

There were no equity-settled share-based payment transactions during 2010 and therefore no charges to include in the financial information (2009 – £nil; 2008 – £34 expense in respect of goods and services received and £1,147 commission chargeable to the share premium account, although no provision was made for these items as the figures were negligible).

PART V

ADDITIONAL INFORMATION

1. Responsibility

1.1 The Company, together with the Directors, whose names and functions are set out on page 32 of this document, accept full responsibility both individually and collectively for all of the information contained in this document, and for compliance with the AIM Rules for Companies. To the best of the knowledge and belief of the Directors and the Company (who have taken all reasonable care to ensure that such is the case) the information contained in this document is in accordance with the facts and does not omit anything likely to affect its import.

1.2 Dargo accepts full responsibility for the information contained in Part III of this document. To the best of the knowledge and belief of Dargo (who have taken all reasonable care to ensure that such is the case) the information contained in Part III of this document is in accordance with the facts and does not omit anything likely to affect its import.

2. The Company

2.1 The Company was incorporated and registered on 5 July 2006 in England and Wales under the Companies Act 1985 with registered number 5867160 as a public company limited by shares with the name Oracle Coalfields plc. The Company is domiciled in the United Kingdom.

2.2 The principal legislation under which the Company operates is the 2006 Act and the regulations made thereunder.

2.3 The liability of the members of the Company is limited.

2.4 The Company has no commercial name other than its registered name and does not operate under any other name.

2.5 The registered and head office of the Company is at Richmond House, Broad Street, Ely, Cambridgeshire CB7 4AH with telephone number +44 (0) 1353 662 892. The address of the Company's corporate website on which the inforation required by Rule 26 of the AIM Rules for Companies can be found is www.oraclecoalfields.com.

2.6 The ISIN number of the Ordinary Shares to be admitted is GB00B23JN426. The Ordinary Shares have been created pursuant to the 1985 Act and the 2006 Act.

2.7 The Company's accounting reference date is 31 December.

2.8 The Company has no administrative, management or supervisory bodies other than the Board, the remuneration committee and the audit committee.

2.9 The Company is the holding company for one subsidiary, Sindh Carbon Energy. The principal activity of the Company is that of a holding company. Details of Sindh Carbon Energy are set out below:

Name	*Registered or principal office*	*Country of Incorporation*	*Principal Activity*	*Issued share capital*	*Percentage Ownership*
Sindh Carbon Energy	Hyderabad	Pakistan	Coal exploration and mining	1,000,000 Ord shares at PKR 10 each	80%*

* The other joint venture partner who holds the remaining 20 per cent. of the issued share capital of SCE is Sindh Koela, a company incorporated in Pakistan.

2.10 Save as disclosed at paragraph 2.9 of this Part V, there are no undertakings in which the Company holds a proportion of the capital likely to have a significant effect on the assessment of its own assets and liabilities, financial position or profits and losses.

3. Share capital

3.1 The Company incorporated with an authorised share capital of £2,000,000 divided into 200,000,000 Ordinary Shares of 1p each, of which 2 were issued to the subscribers to the Company's Memorandum and Articles of Association.

3.2 On 1 September 2006 a total of 4,999,998 Ordinary Shares were subscribed for at a price of 1p each. On 12 October 2006 the Registrar of Companies issued a certificate entitling the Company to commence business and exercise borrowing powers under the provisions of Section 117 of the 1985 Act.

3.3 On 2 February 2007 each of the 5,000,000 issued Ordinary Shares of 1p each and the 195,000,000 unissued Ordinary Shares of 1p each in the capital of the Company were sub-divided into 10 Ordinary Shares of 0.1p each.

3.4 On 29 June 2007, 55,000,000 Ordinary Shares of 0.1p each were issued for cash. 40,000,000 of these shares were issued at a subscription price of 1p per share and 15,000,000 of these shares were issued at a subscription price of 1.3p per share.

3.5 On 29 June 2007 Conrad Windham transferred 5,000,000 Ordinary Shares to Starvest Plc for an aggregate consideration of £5,000.

3.6 On 2 August 2007 the Ordinary Shares were admitted to trading on PLUS Markets.

3.7 On 17 September 2007, 3,546,334 Ordinary Shares of 0.1p each were allotted fully paid for cash at a premium of 2.9p per share through a private placing.

3.8 As at 1 January 2008, being the start of the period covered by the historic financial information on the Group set out at Section B of Part IV of this document, the issued share capital of the Company was 108,546,334 Ordinary Shares.

3.9 Since 1 January 2008 the following allotment and issues of Ordinary Shares have been made:

Issue date	*Price*	*Money raised*	*No. of Ordinary Shares issued*	*Shares in issue post raise*
13 June 2008	8.25p	£453,750	5,500,000	114,046,334
23 March 2009 to 5 May 2009	3p	£249,400	8,313,334	122,359,668
28 June 2010	3p	£1,041,690	34,722,999	157,082,667
28 June 2010	3p	—	5,833,333[(1)]	162,916,000
30 June 2010	3p	£83,850	2,795,000	165,711,000
1 December 2010	5.5p	£1,017,500	18,500,000	184,211,000
Totals		£2,846,190	75,664,666	184,211,000

(1) the Company issued 5,833,333 Ordinary Shares and a £50,000 loan note to Libertas, by way of payment of the majority of its fees for the private placement of 28 June 2010, pursuant to which £1,041,690 was raised by the Company. The £50,000 loan note was repaid by the Company on 12 August 2010.

3.10 As of 31 December 2010, being the end of the period covered by the historic financial information on the Group set out at Section B of Part IV of this document, the issued share capital of the Company was 184,211,000 Ordinary Shares.

3.11 At the annual general meeting of the Company held on 24 August 2010, *inter alia*, the following resolutions were passed, of which resolution (a) was passed as an ordinary resolution and resolutions (b) and (c) as special resolutions:

(a) for the purposes of section 551 of the 2006 Act the directors of the Company be and are hereby generally and unconditionally authorised to exercise all powers of the Company to allot equity securities (within the meaning of section 560 of the 2006 Act) up to an aggregate nominal amount of £50,000 provided that this authority shall expire (unless previously renewed, varied or revoked by the Company in general meeting) at the

conclusion of the next annual general meeting of the Company, save that the Company may before such expiry make an offer or agreement which would or might require relevant securities to be allotted after such expiry and the directors of the Company may allot relevant securities in pursuance of such offer or agreement as if the authority conferred hereby had not expired. This authority is in substitution for any and all authorities previously conferred upon the directors for the purposes of section 551 of the 2006 Act or section 80 of the 1985 Act, without prejudice to any allotments made pursuant to the terms of such authorities;

(b) subject to the passing of resolution (a) above the directors of the Company be and are hereby empowered pursuant to section 570 of the 2006 Act to allot equity securities (within the meaning of section 560 of the 2006 Act) pursuant to the authority conferred by resolution (a) above and to sell treasury shares as if section 561 of the 2006 Act did not apply to any such allotment or sale provided that the power conferred by this resolution shall be limited to:

(i) the allotment or sale of equity securities for cash in connection with an issue or offer of equity securities (including, without limitation, under a rights issue, open offer, or similar arrangement) to holders of equity securities in proportion (as nearly as may be practicable) to their respective holdings of equity securities subject only to such exclusions or other arrangements as the directors of the Company may consider necessary or expedient to deal with fractional entitlements or legal or practical problems under the laws of any territory, or the requirements of any regulatory body or stock exchange in any territory; and

(ii) the allotment or sale (otherwise than pursuant sub-paragraph (i) of resolution (b)) of equity securities for cash up to an aggregate nominal value of £50,000.

The power conferred by this resolution (b) shall expire (unless previously renewed, revoked, or varied by the Company in general meeting), at such time as the general authority conferred on the directors of the Company by resolution (a) above expires, except that the Company may at any time before such expiry make any offer or agreement which would or might require equity securities to be allotted or sold after such expiry and the directors of the Company may allot or sell equity securities in pursuance of such an offer or agreement as if the authority conferred hereby had not expired.

(c) The Articles of Association of the Company be amended by deleting all the provisions of the Company's Memorandum of Association which, by virtue of section 28 of the 2006 Act, are to be treated as provisions of the Company's Articles of Association and the Articles of Association produced to the meeting and signed by the chairman of the meeting for the purposes of identification be adopted as the Articles of Association of the Company in substitution for, and to the exclusion of, the existing Articles of Association.

3.12 The Placing Shares have been issued pursuant to the authorities and powers set out in paragraph 3.11 of this Part V.

3.13 Except to the extent disapplied pursuant to the resolution passed to empower the directors under Section 570 of the 2006 Act, as set out in paragraph 3.11 of this Part V, the provisions of Section 561 of the 2006 Act (which confer on Shareholders rights of pre-emption in respect of the allotment of equity securities (as defined in Section 560 of the 2006 Act) which are, or are to be, paid up in cash) will apply to the unissued Ordinary Shares of the Company.

3.14 The Placing will result in the issue of 30 million new Ordinary Shares. The Company's issued share capital is at the date of this document and is expected to be immediately following Admission as follows:

	As at the date of this document		*As at Admission*	
	Nominal Value (£)	*Number of Ordinary Shares in issue*	*Nominal Value (£)*	*Number of Ordinary Shares in issue*
Issued	184,211	184,211,000	214,211	214,211,000

3.15 The Placing Shares will rank *pari passu* in all respects with the Existing Ordinary Shares, including the right to receive all dividends and other distributions declared, made or paid after Admission on the Ordinary Share capital.

3.16 The Company has no authorised share capital.

3.17 There are no shares in the capital of the Company currently in issue with a fixed date on which entitlement to a dividend arises and there are no arrangements in force whereby future dividends are waived or agreed to be waived.

3.18 Save as disclosed in paragraphs 3.4, 3.5, 3.9, 6 and 12.8 of this Part V and apart from the issue of Placing Shares pursuant to the Placing:

(a) no share or loan capital of the Company has been issued or is proposed to be issued;

(b) there are no outstanding convertible securities, exchangeable securities or securities with warrants issued by the Company;

(c) there are no shares in the Company not representing capital;

(d) there are no shares in the Company held by or on behalf of the Company itself or by subsidiaries of the Company;

(e) there are no acquisition rights and/or obligations over authorised but unissued share capital of the Company or an undertaking to increase the share capital of the Company;

(f) no person has any preferential subscription rights for any share capital of the Company;

(g) no share or loan capital of the Company or any member of the Group is under option or agreed conditionally or unconditionally to be put under option; and

3.19 The Ordinary Shares do not have any particular voting rights or preferences other than entitling a Shareholder to one vote per share.

3.20 The Ordinary Shares are not redeemable or convertible.

3.21 All of the Ordinary Shares will be in registered form and enabled for settlement in CREST. Accordingly, the Ordinary Shares are capable of being held in uncertificated form. Capita Registrars are in charge of keeping the records in respect of Ordinary Shares held in uncertificated form. No temporary documents of title will be issued.

3.22 None of the Ordinary Shares have been sold or made available to the public in conjunction with the application for Admission.

3.23 The Company has not used more than 10 per cent. of the Ordinary Share capital for the purchase of non cash assets for the period from incorporation to 31 December 2010.

4. Memorandum of Association

Pursuant to a resolution of the Shareholders of the Company dated 24 August 2010 the objects of the Company, previously contained in the Memorandum and Articles of Association, were removed.

5. Articles of Association

The Articles of Association, which were adopted by the Company on 24 August 2010, include, among other things, provisions to the following effect:

5.1 ***Voting Rights***

5.1.1 Subject to the provisions of the 2006 Act and to any rights or restrictions as to voting attached to any share or class of share in the Articles, at any general meeting on a show of hands every member who (being an individual) is present in person or by proxy (not being himself a member) or (being a corporation) is present by a duly authorised representative or by proxy (not being himself a member) has one vote, and on a poll every member present in person or by proxy or (being a corporation) by a duly authorised representative has one vote for each Ordinary Share of which he is the holder.

5.1.2 No Shareholder shall, unless the Board otherwise determines, be entitled to vote at any general meeting, or, at any separate meeting of the holders of any class of shares, unless all calls or other sums presently payable by him in respect of shares in the Company have been paid and/or where he is not permitted to vote in accordance with paragraph 5.1.3 below (Disclosure of interests in Shares).

5.1.3 Nothing in the Articles confers on major shareholders in the Company any voting rights, which are different to those conferred on the holders of Ordinary Shares as described in paragraph 5.1.1 above.

5.2 ***Transfer of shares***

5.2.1 Transfer of shares may be effected by transfer in writing in any usual or common form or in any other form acceptable to the directors. The instrument of transfer, if any, shall be signed by or on behalf of the transferor and (except in the case of fully paid shares) by or on behalf of the transferee. The transferor shall be deemed to remain the holder of the share until the name of the transferee is entered on the register of members in respect thereof.

5.2.2 The Board may, in its absolute discretion and without giving any reason, refuse to register any transfer of shares:

- which are not fully paid;
- which are held in certificated form, unless the instrument of transfer is duly stamped, is deposited at the office or such other place as the Directors may appoint and is accompanied by the certificate for the shares to which it relates and such other evidence as the Directors may reasonably require to show the right of the transferor to make the transfer;
- which are held in certificated form, unless the instrument of transfer is in respect of only one class of share;
- in the event that the proposed transfer is in favour of more than four transferees; and
- which are held in uncertificated form, in the circumstances set out in the Regulations.

5.2.3 If the Board refuses to register a transfer it must, within two months after the date on which the transfer was lodged with the Company, send notice of the refusal to the transferor and the transferee.

5.3 ***Requirement to disclose interests in shares***

5.3.1 Pursuant to Rule 5 of the Disclosure Rules, holders of three per cent. or more of the voting rights of the Company's share capital are required to notify their interest in writing to the Company.

5.3.2 Pursuant to section 793 of the 2006 Act, the Company may by notice in writing require a person whom the Company knows or has reasonable cause to believe to be or, at any time during the three years immediately preceding the date on which the notice is issued, to have been interested in shares comprised in the Company's issued share capital, to confirm that fact

or (as the case may be) to indicate whether or not it is the case, and where that person holds, or has during that time held an interest in shares to comprised, to give such further information as may be required in accordance with sections 793(3), (4) and/or (6) of the 2006 Act.

5.3.3 If a member, or any other person appearing to be interested in shares held by that member, has been issued with a notice pursuant to section 793 of the 2006 Act and has failed in relation to any shares (the "default shares") to give the Company the information thereby required within the prescribed period from the date of notice, the following sanctions shall apply:

- the member shall not be entitled in respect of the default shares to be present or to vote (either in person or by representative or proxy) at any general meeting or at any separate meeting of the holders of any class of shares or on any poll or to exercise any other right conferred by membership in relation to any such meeting or poll; and
- where the default shares represent at least 0.25 per cent. in nominal value of their class the defaulting member shall not be entitled to:
- receive dividends: any dividend or other money payable in respect of the shares shall be withheld by the Company, which shall not have any obligation to pay interest on it and the member shall not be entitled to elect in the case of a scrip dividend to receive shares instead of that dividend; and
- transfer or agree to transfer any of such shares or any rights therein.

5.3.4 The above restrictions shall continue until either the default is remedied or the shares are registered in the name of the purchaser or offeror (or that of his nominee) pursuant to an arm's length transfer. Any dividends withheld pursuant to paragraph 5.3.3 above to shall be paid to the member as soon as practicable after the above restrictions lapse.

5.4 ***Dividends***

5.4.1 Subject to the provisions of the 2006 Act and of the Articles and to any special rights attaching to any shares, the Company may by ordinary resolution declare dividends, but no such dividends shall exceed the amount recommended by the Board. All dividends shall be apportioned and paid *pro rata* according to the amounts paid up or credited as paid up (otherwise than in advance of calls) on the shares during any portion or portions of the period in respect of which the dividend is paid. Interim dividends may be paid provided that they appear to the Board to be justified by the profits available for distribution and the position of the Company. The Board may, with the prior authority of an ordinary resolution of the Company, offer the holders of Ordinary Shares the right to elect to receive Ordinary Shares credited as fully paid instead of cash in respect of all or part of any dividend.

5.4.2 Any dividend unclaimed after a period of 12 years from its due date of payment shall be forfeited and cease to remain owing by the Company and shall thereafter belong to the Company absolutely.

5.4.3 Where, in respect of any shares, any registered holder or any other person appearing to be interested in shares of the Company fails to comply with any notice given by the Company under section 793 of 2006 Act, then, provided that the shares concerned represent at least 0.25 per cent. in nominal amount of the issued shares of the relevant class, the Company may withhold dividends on such shares.

5.5 ***General Meetings***

5.5.1 An annual general meeting shall (in addition to any other general meetings held) be called in accordance with the notice requirements in the 2006 Act. Notice may be given by any means or combination of means permitted by law. Subject to a member's right to requisition a general meeting pursuant to section 303 of the 2006 Act, general meetings of the Company are convened at the discretion of the board.

5.5.2 The directors may whenever they think fit, and shall on requisition in accordance with the 2006 Act, proceed to convene a general meeting for a date not later than seven weeks after receipt of the requisition.

5.5.3 a meeting of the Company is deemed to have been duly called if such shorter period of notice is so agreed:

- in the case of a meeting called as an annual general meeting, by all the members entitled to attend and vote at it; or
- in the case of any other meeting, by a majority in number of the members having a right to attend and vote at the meeting, being a majority who together hold not less than 95 per cent., in nominal value of the shares giving a right to attend and vote at the meeting (excluding any shares in the Company held as treasury shares).

5.5.4 Every notice shall be in writing (or shall be given by electronic communication to an address being notified for that purpose to the Company) and shall specify the place, the day and the time of meeting, and in the case of special business the general nature of such business, and in the case of an annual general meeting shall specify the meeting as such. Notices shall be given in manner hereinafter mentioned to all the members, other than those who under the provisions of the Articles or the conditions of issue of the shares held by them are not entitled to receive the notice, to the directors (including the alternate directors) and to the auditors for the time being.

5.5.5 In every notice calling a meeting of the Company there shall appear with reasonable prominence a statement that a member entitled to attend and vote is entitled to appoint one or more proxies to attend and vote instead of him and that a proxy need not also be a member.

5.5.6 Where special notice of a resolution is required by any provision contained in the 2006 Act, the resolution is not effective unless notice of the intention to move it has been given to the Company at least 28 days (or such shorter period as the 2006 Act permit) before the meeting at which it is moved and the Company must give to its members notice of any such resolution as required by and in accordance with the provisions of the 2006 Act.

5.6 ***Directors' powers to authorise conflicts of interest***

5.6.1 The Directors may in accordance with the terms of the Articles authorise any matter which would otherwise result in a Director infringing his duty to avoid a situation in which he has, or can have, a direct or indirect interest that conflicts, or possibly may conflict, with the interests of the Company and which may reasonably be regarded as likely to give rise to a conflict of interest (including a conflict of interest and duty or conflict of duties) and a Director to accept or continue in any office, employment or position in addition to his office as a Director of the Company may authorise the manner in which a conflict of interest arising out of such office, employment or position may be dealt with, either before or at the time that such a conflict of interest arises, provided that for this purpose the Director in question and any other interested Director are not counted in the quorum at any meeting of the Board at which such matter, or such office, employment or position, is approved and it is agreed to without their voting or would have been agreed to if their votes had not been counted.

5.6.2 If a matter, or office, employment or position, has been authorised by the Directors then:

- the Director shall not be required to disclose any confidential information relating to such matter, or such office, employment or position, to the Company if to make such a disclosure would result in a breach of a duty or obligation of confidence owed by him in relation to or in connection with that matter, or that office, employment or position;

- the Director may absent himself from meetings of the Directors at which anything relating to that matter, or that office, employment or position, will or may be discussed; and
- the Director may make such arrangements as such Director thinks fit for Board and committee papers to be received and read by a professional adviser on behalf of that Director.

5.6.3 A Director shall not, by reason of his office, be accountable to the Company for any benefit which he derives from any matter, or from any office, employment or position, which has been approved by the (subject in any such case to any limits or conditions to which such approval was subject).

5.7 ***Alteration of Capital***

The Company may alter its share capital as follows:

(a) it may by ordinary resolution increase its share capital, consolidate and divide all or any of its share capital into shares of larger amounts, cancel any shares which have not been taken or agreed to be taken by any person and sub-divide its shares or any of them into shares of smaller amounts;

(b) subject to any consent required by law and to any rights for the time being attached to any shares, it may by special resolution reduce its share capital, any capital redemption reserve, any share premium account or other undistributable reserve in any manner; and

(c) subject to the provisions of the 2006 Act and to any rights for the time being attached to any shares it may with the sanction of a special resolution enter into any contract for the purchase of its own shares.

5.8 ***Variation of Rights***

Subject to the provisions of the 2006 Act and of the Articles, the special rights attached to any class of share in the Company may be varied or abrogated either with the consent in writing of the holders of not less than three quarters in nominal value of the issued shares of the class or with the sanction of an extraordinary resolution passed at a separate general meeting of the holders of the shares of the class (but not otherwise) and may be so varied or abrogated whilst the Company is a going concern or while the Company is or is about to be in liquidation. The quorum for such separate general meeting of the holders of the shares of the class shall be at least two persons holding or representing by proxy at least one-third of the nominal amount paid up on the issued shares of the relevant class.

5.9 ***Number of directors***

Unless otherwise determined by the Company by ordinary resolution, the number of Directors shall be not less than three and not more than 10.

5.10 ***Interests of directors***

5.10.1 Subject to the provisions of the 2006 Act and provided that he discloses to the directors the extent and nature of any interest of his, a director is not disqualified by his office from contracting with the Company in any manner, nor is any contract in which he is interested liable to be avoided, and any director who is so interested is not liable to account to the Company for any profit realised by the contract, by reason of the director holding that office or of the fiduciary relationship thereby established.

5.10.2 Subject to the provisions of the 2006 Act and provided that he discloses to the directors the extent and nature of any interest of his, a director may hold any other office or place of profit with the Company (except that of auditor) in conjunction with his office of director and may act in a professional capacity for the Company (other than as auditor) on such terms as to tenure of office, remuneration or otherwise as the directors may determine. A director may also hold office as a director or other officer or be otherwise interested in any

other company of which the Company is a member or in which the Company is otherwise interested and shall not be liable to account to the Company for any remuneration or other benefits received by him from that company.

5.11 ***Restrictions on voting by directors***

5.11.1 A director who is in any way, whether directly or indirectly, interested or deemed by the 2006 Act to be interested in a contract, transaction or arrangement or a proposed contract, transaction or arrangement with the Company shall declare the nature of his interest at a meeting of the directors in accordance with section 182 of the 2006 Act.

5.11.2 Save as provided below, a director (including an alternate director) shall not vote in respect of any contract or arrangement or any other proposal in which he has any material interest otherwise than by virtue of his interests in shares or debentures or other securities or rights of the Company. However a director shall be entitled to vote in respect of any contract or arrangement or any other proposal in which he has any interest which is not material. A director shall not be counted in the quorum at a meeting in relation to any resolution on which he is debarred from voting. A director of the Company shall be entitled to vote (and be counted in the quorum) in respect of any resolution at such meeting if his duty or interest arises only because the resolution relates to one of the following matters:

- the giving to him of any guarantee, security or indemnity in respect of money lent or obligations incurred by him at the request of or for the benefit of the Company;
- the giving to a third party of any guarantee, security or indemnity in respect of a debt or obligation of the Company for which he himself has assumed responsibility in whole or in part, under a guarantee or indemnity or by the giving of security;
- any proposal concerning an offer for subscription or purchase of shares or debentures or other securities or rights of or by the Company or any of its subsidiaries or of any Company which the Company may promote or in which it may be interested in which offer he is or is to be interested as a participant in the underwriting or sub-underwriting thereof;
- any proposal concerning any other Company in which he is interested directly or indirectly and whether in any one or more of the capacities of officer, creditor, employee or holder of shares, debentures, securities or rights of that other Company, but where he is not the holder (otherwise than as a nominee for the Company or any of its subsidiaries) of or beneficially interested in one per cent. or more of the issued shares of any class of such Company or of any third Company through which his interest is derived or of the voting rights available to members of the relevant Company (any such interest being deemed for the purpose of this Article to be a material interest in all circumstances);
- any proposal concerning the adoption, modification or operation of a superannuation fund, retirement benefits scheme, share option scheme or share incentive scheme under which he may benefit; or
- any arrangement concerning the purchase and/or maintenance of any insurance under which he may benefit.

5.11.3 Where proposals are under consideration concerning the appointment (including fixing or varying the terms of appointment) of two or more directors to offices or employments with the Company or any Company in which the Company is interested, such proposals may be divided and considered in relation to each director separately and in such case each of the directors concerned (if not otherwise debarred from voting) shall be entitled to vote (and be counted in the quorum) in respect of each resolution except that concerning his own appointment.

5.11.4 The Company may by ordinary resolution suspend or relax the provisions relating to directors' interests either generally or in respect of any particular matter or ratify any transaction not duly authorised by reason of the contravention thereof.

5.12 ***Appointment and retirement of directors***

5.12.1 The directors shall have power at any time, and from time to time, to appoint any person who is willing to act to be a director, either to fill a vacancy or as an additional director, but so that the total number of directors shall not at any time exceed the maximum number (if any) fixed by or in accordance with the Articles. Subject to the provisions of the 2006 Act and of the Articles, any director so appointed shall hold office only until the conclusion of the next following annual general meeting, and shall be eligible for reappointment at that meeting. Any director who retires shall not be taken into account in determining the directors who are to retire by rotation at such meeting and if not re-appointed at such annual general meeting, he shall vacate office at the conclusion thereof.

5.12.2 No person other than a director retiring at the meeting shall, unless recommended by the directors for appointment, be eligible for appointment to the office of director at any general meeting unless, not less than seven nor more than forty two days before the day appointed for the meeting, there shall have been given to the Company notice in writing by some member duly qualified to attend and vote at the meeting for which such notice is given of his intention to propose such person for appointment stating the particulars which would, if he were so appointed, be required to be included in the Company's register of directors, and also notice in writing signed by the person to be proposed of his willingness to be appointed.

5.12.3 At every annual general meeting of the Company, any Director who has been appointed by the Board since the last annual general meeting or who held office at the time of the two preceding annual general meetings and who did not retire at either of them shall retire from office and may offer himself for election/re-election by the members.

5.12.4 The directors to retire at such annual general meeting shall include such of the directors referred to above who wish to retire and not offer themselves for re-election (if any) together with, to the extent that the number of such Directors is insufficient to meet the number required to retire, such of the Directors who have been longest in office as are necessary to meet such number. As between two or more who have been in office an equal length of time, the director(s) to retire shall (in default of agreement between them) be determined by lot. The length of time a director has been in office shall be computed from his last election, re-election or appointment when he has previously vacated office. A retiring director shall be eligible for re-election.

5.12.5 The Company may from time to time by ordinary resolution increase or reduce the number of directors, and may also determine in what rotation such increased or reduced number is to retire from office.

5.13 ***Remuneration of directors***

5.13.1 The maximum aggregate annual fees payable to each director for his/her services in holding office of director of the Company shall be the sum of £250,000 but this limit shall not apply in respect of the salaries, bonuses or other remuneration payable by the Company or any subsidiary of the Company or expenses reimbursed to any executive director.

5.13.2 Any director who serves on any committee or who devotes special attention to the business of the Company, or who otherwise performs services which in the opinion of the Directors are outside the scope of the ordinary duties of a Director, may be paid such remuneration by way of salary, lump sum, percentage of profits or otherwise as the Directors may determine. The Directors shall also be entitled to be paid all travelling, hotel and other expenses properly incurred by them in connection with the business of the Company, or in attending and returning from meetings of the Directors or of committees of the Directors or general meetings or separate meetings of the holders of any class of shares or of debentures of the Company or otherwise in connection with the discharge of their duties.

5.14 ***Borrowing powers***

5.14.1 The Directors may exercise all the powers of the Company to borrow money and to mortgage or charge its undertaking, property and uncalled capital, or any part if it, and, subject to the provisions of the 2006 Act, to issue debentures and other securities, whether outright or as collateral security, for any debt, liability or obligation of the Company or ofany third party.

5.14.2 The Directors may secure or provide for the payment of any money to be borrowed or raised by a mortgage of or charge upon all or any part of the undertaking or property of the Company, both present and future, and upon any capital remaining unpaid upon the shares of the Company, whether called up or not, or by any other security. The Directors may confer upon any mortgagees or persons in whom any debenture or security is vested such rights and powers as they think necessary or expedient. They may vest any property of the Company in trustees for the purpose of securing any money so borrowed or raised and confer upon the trustees, or any receiver to be appointed by them, or by any debenture holder, such rights and powers as the Directors may think necessary or expedient in relation to the undertaking or property of the Company or its management or realisation or the making, receiving or enforcing of calls upon the members in respect of unpaid capital, and otherwise. The Directors may make and issue debentures to trustees for the purpose of further security and the Company may remunerate any such trustees.

5.14.3 The Directors may give security for the payment of any money payable by the Company in same manner as for the payment of money borrowed or raised.

5.15 ***Overseas Members***

A member who (having no registered address in the UK) has not supplied to the Company an address for the service of notice shall not be entitled to receive notices from the Company.

5.16 ***CREST***

The Articles are consistent with CREST membership and, *inter alia*, allow for the holding and transfer of securities of the Company in uncertificated form.

6. Warrants

6.1 The Company has at the date of this document granted Warrants over Ordinary Shares as follows:

Holder	*Date of grant*	*Number of warrants granted*	*Exercise price per share*	*Expiry Date*
Shahrukh Khan	13.02.07	6,000,000	5p	31.03.17
Conrad Windham	13.02.07	6,000,000	5p	31.03.12
Bruce Rowan	13.02.07	6,000,000	5p	31.03.12
Anthony Scutt	13.02.07	2,000,000	5p	31.03.17
Edward Taylor	13.02.07	80,000	5p	31.03.17
St Helen's Capital	02.08.07	500,000	5p	31.03.12
Martin Roderick Stead	15.11.07 and 18.04.11	450,000(1)	5p	31.03.17
Libertas	14.04.11	300,000	10p	14.04.16
Novus	14.04.11	300,000	10p	14.04.16
Total:		21,630,000		

(1) Martin Roderick Stead was granted Warrants in respect of 200,000 Ordinary Shares on 15.11.07 and Warrants in respect of 250,000 Ordinary Shares on 18.04.11.

6.2 The Warrants granted to Shahrukh Khan, Conrad Windham, Bruce Rowan, Anthony Scutt, Edward Taylor and Roderick Stead may be exercised in whole or in part. Any Ordinary Shares issued pursuant to an exercise of Warrants shall rank *pari passu* in all respects and as one class with the other fully paid issued Ordinary Shares, only in relation to distributions declared, made or paid to shareholders on a record date occurring after the date of issue of the Warrants. The Company

shall keep available sufficient authorised but unissued share capital to satisfy the exercise of warrants. The number and price of the warrants may be adjusted by the Directors (such adjustment to be confirmed to be fair and reasonable in the opinion of the Company's auditors) upon the occurrence of any capitalisation issue, reduction, consolidation, subdivision or other variation of the capital of the Company. The warrants may be exercised immediately upon a sale that results in the purchaser (or purchasers Acting in Concert (as defined in the City Code)) owning in aggregate more than fifty per cent. of the total voting rights in the Company or as upon a general offer being made to acquire the whole of the issued ordinary share capital of the Company.

6.3 The Warrants granted to St Helen's may be exercised in whole, in part, or in a series of parts. The Warrant instrument provides that the number and exercise price of the Warrants may be adjusted by the Directors upon any capital issue, or upon any reduction, consolidation or other criteria of the Capital of the Company after the date on which the Warrants are granted.

6.4 The warrants granted to Libertas may be exercised in whole, in part or in a series of parts. The warrant instrument provides that the number and/or nominal value of Ordinary Shares to be subscribed on exercise of the warrant may be increased or decreased (as the case may be) so as to maintain the same relative subscription rights for the warrants following any allotment by the Company of fully paid Ordinary Shares by way of capitalisation of the Company's reserves (other than Ordinary Shares paid up out of distributable reserves and issued in lieu of a cash dividend) to holders of the Ordinary Shares on the register on a date (or by reference to a record date) before the end of the warrant exercise period or upon any sub-division or consolidation of the Ordianry Shares or reduction of share capital before the end of the warrant exercise period. The Company shall keep available for issue sufficient authorised but unissued share capital to satisfy in full the warrant to the extent it remains exercisable.

6.5 The warrants granted to Novus are granted on the same terms as those granted to Libertas as outlined in paragraph 6.4 above.

7. Directors' and Other Interests

7.1 As at the date of this document and immediately following Admission, the interests (within the meaning of Chapter 5 of the DTRs (all of which are beneficial unless otherwise stated) of the Directors and their respective families (as defined in the AIM Rules for Companies) in the share capital of the Company, and such interests of persons connected (within the meaning of section 252 of the 2006 Act) with a Director the existence of which is known to, or could with reasonable diligence be ascertained by, that Director were and will be as follows:

	As at the date of this document		*Immediately following Admission*	
Director	*Number of Ordinary Shares*	*Percentage of Existing Ordinary Shares*	*Number of Ordinary Shares*	*Percentage of Enlarged Share Capital*
Shahrukh Khan	29,530,791	16.03	29,530,791	13.79
Anthony Charles Raby Scutt	113,000	0.06	113,000	0.05
Martin Roderick Stead	20,000	0.01	20,000	0.01

7.2 As at the date of this document and immediately following Admission, the number of Warrants held by the Directors was and will be as follows:

	As at the date of this document		*Immediately following Admission*	
Director	*Number of Warrants to subscribe for Ordinary Shares*	*Percentage of Existing Ordinary Shares*	*Number of Warrants to subscribe for Ordinary Shares*	*Percentage of Enlarged Share Capital*
Shahrukh Khan	6,000,000	3.25	6,000,000	2.8
Martin Roderick Stead	450,000	0.24	450,000	0.21
Anthony Charles Raby Scutt	2,000,000	1.08	2,000,000	0.93

7.3 Save as disclosed above, none of the Directors nor any member of their immediate families or persons connected with them (within the meaning of sections 252 to 254 of the 2006 Act) holds or is interested, whether beneficially or non-beneficially, directly or indirectly, in any shares, warrants or options over shares, or securities convertible into, shares of the Company or its subsidiary.

7.4 In addition to the interests of the Directors disclosed in paragraphs 7.1 and 7.2 above, as at 14 April 2011 (being the date of the document), insofar as is known to the Company, the following persons were, or will at Admission, be directly or indirectly interested (within the meaning of Part 6 FSMA and section 5 of the DTRs) in three per cent. or more of the issued Ordinary Share capital of the Company:

	As at the date of this document		*Immediately following Admission*	
Name of Shareholder	*Number of Ordinary Shares*	*Percentage of Existing Ordinary Shares*	*Number of Ordinary Shares*	*Percentage of Enlarged Share Capital*
Starvest Plc	21,003,333	11.40	21,003,333	9.80
Sunvest Corporation Pty Ltd	20,000,000	10.85	20,000,000	9.34
Regency Mines Plc	20,750,000	11.26	20,750,000	9.69
Andrew Neubauer	19,535,330	10.60	19,535,330	9.12
Bruce Rowan	10,000,000	5.42	10,000,000	4.67

7.5 Save as disclosed in paragraph 7.4 of this Part V and so far as the Company is aware, there are no persons who are at the date of this document or will be immediately following Admission, interested directly or indirectly in three per cent. or more of the issued share capital of the Company or who could directly or indirectly, jointly or severally, exercise or could exercise, control over the Company.

7.6 The persons, including the Directors, referred to in paragraph 7.1 of this Part V, do not have voting rights in respect of the share capital of the Company (issued or to be issued) which differ from any other shareholder of the Company.

7.7 The Directors are not aware of any arrangements in place or under negotiation the operation of which may, at a subsequent date, result in a change of control of the Company.

7.8 None of the Directors has any interest, whether direct or indirect, in any transactions which are or were unusual in their nature or conditions or which are or were significant to the business of the Company or the Group and which were effected since its incorporation and which remains in any respect outstanding or unperformed.

7.9 There are no outstanding loans or guarantees provided by the Company for the benefit of any of the Directors nor are there any outstanding loans or guarantees provided by any of the Directors for the benefit of the Company.

7.10 None of the Directors or any member of a Director's family (as defined in the AIM Rules for Companies) nor any person connected with him (within the meaning of Sections 252 to 254 of the 2006 Act) is interested in any related financial product (as defined in the AIM Rules for Companies) whose value in whole or in part is determined directly or indirectly by reference to the price of the Ordinary shares, including a contract for difference or a fixed odds bet.

7.11 Save as disclosed in this paragraph 7, the Company is not directly or indirectly owned or controlled by any person.

8. Further information about the Directors and employees

8.1 The full names, functions and dates of appointment of the Directors are as follows:

Name	*Function*	*Date of Appointment*
Shahrukh Khan	Chairman and Chief Executive Officer	5 July 2006
Martin Roderick Stead	Interim Finance Director	1 November 2007
Anthony Charles Raby Scutt	Non-Executive Director	22 December 2006

8.2 The business address of each of the Directors is Richmond House, Broad Street, Ely, Cambridgeshire CB7 4AH.

8.3 The Directors currently hold, and have during the five years preceding the date of this document held, the following directorships or partnerships in addition to their directorships of the Company and its subsidiary undertakings:

Director	*Current directorships/partnerships*	*Past directorships/partnerships*
Shahrukh Khan	Al Nasr Europe Limited All Star Minerals plc	Mincap Partners Limited Consolidated Industries Limited OGM Capital Limited Powergreen Energy Limited Zarsal Limited
Martin Roderick Stead	None	None
Anthony Charles Raby Scutt	Agricola Resources plc Beowulf Mining plc Starvest plc	Addworth plc Uranium Prospects plc Oil and Gas Support Services plc

8.4 Save as set above, none of the Directors have any business interests or activities outside the Company which are significant with respect to the Company.

8.5 None of the Directors has:

8.5.1 any unspent convictions in relation to indictable offences;

8.5.2 been the subject of any public criticism by any statutory or regulatory authority (including recognised professional bodies) nor disqualified by a court from acting as a director of a company or from acting in the management or conduct of the affairs of any company;

8.5.3 been a director of a company at the time of, or within the 12 months preceding the date of, that company being the subject of a receivership, compulsory liquidation, creditors' voluntary liquidation, administration, company voluntary arrangement or any composition or arrangement with its creditors generally or any class of its creditors;

8.5.4 been a partner in a partnership at the time of, or within 12 months preceding the date of, that partnership being placed into compulsory liquidation or administration or partnership voluntary arrangement;

8.5.5 had any asset of his subject to a receivership or been a partner in a partnership at the time of or within the 12 months preceding any asset of such partnership being subject to a receivership;

8.5.6 been bankrupt nor been the subject of any form of individual voluntary arrangement; or

8.5.7 been disqualified by a court from acting as a director of any company or from acting in the management or conduct of affairs of a company.

8.6 As at 14 April 2011 (being the date of this document) the Company has no employees.

9. Directors and senior management's service agreements and letters of appointment

9.1 ***Shahrukh Khan, Chairman and Chief Executive Officer***

Mr Khan was appointed as a director under the terms of a service agreement dated 13 February 2007. Under the terms of the service agreement Mr Khan will be under continuous employment from the aforementioned date and will be paid £35,000 per annum (which was increased to £47,000 in October 2007) as well as reasonable expenses incurred in the exercise of his duties, together with holiday pay and sick pay. With effect from 1 January 2011 Mr Khan has been paid £80,000 per annum.

Under the terms of the service agreement Mr Khan shall devote all time to the business and interests of the Company, faithfully serve the Company and use best endeavours to promote and protect the interests of the Company, performing duties in a faithful and diligent manner; promptly disclose to the Company any information of which he becomes aware which adversely affects the Company; maintain confidentiality on all aspects of the Company's activities; save for the companies referred to therein not directly or indirectly be engaged, concerned or interested in any other business in competition with the business of the Company without the prior written consent of the Company. Either the Company or Mr Khan may terminate the service agreement by giving 6 months' written notice, although the Company may terminate the agreement with immediate effect under certain specified circumstances.

Upon notice to terminate the service agreement being given to Mr Khan, the Company may require Mr Khan to take "gardening leave" for the remainder of the term of the agreement, during which Mr Khan may not be required to carry out his duties/attend his place of work and may not contact or deal with any client/customer or potential client/customer unless instructed by the Company, or work for another organisation without the Company's prior written permission. However, Mr Khan is required to be available to perform any duties asked of him by the Company, and Mr Khan's implied duty of good faith will continue during the period of "gardening leave".

The Company may vary the terms and conditions of employment by giving Mr Khan one month's prior notice. Under the terms of the service agreement Mr Khan shall not directly or indirectly entice or encourage or seek to entice any employee of the Company to leave their employment.

9.2 ***Martin Roderick Stead, Interim Finance Director***

Mr Stead was appointed as a non-executive director of the Company under the terms of a letter of appointment dated 26 October 2007 with such appointment commencing from 1 November 2007, on similar terms as those outlined in paragraph 9.3.below. Under the appointment, Mr Stead will be paid a fee of £15,000 per annum together with reasonable expenses. The fee will be increased to £25,000 per annum with effect from Admission.

Pursuant to a letter of appointment dated 1 March 2011 Mr Stead was appointed as Interim Finance Director until such time, following Admission, as that the Company is able to appoint a new finance director. Under the terms of his appointment as Interim Finance Director, Mr Stead will be paid an additional fee of £2,000 per month together with any reasonable expenses.

9.3 ***Anthony Charles Raby Scutt, Non-Executive Director***

Mr Scutt was appointed as a non-executive director by a letter of appointment dated 13 February 2007, with such appointment commencing from 22 December 2006.

Under the appointment, Mr Scutt will be paid a fee of £15,000 per annum together with any reasonable expenses, and will be subject to the normal duties and responsibilities of a director at law, as well as providing expertise in the field of international financial reporting and audit. Following Admission Mr Scutt's fee will be increased to £25,000 per annum.

Under the terms of the appointment, Mr Scutt's appointment is for a period of two years whereupon it will be reviewed by the board of directors of the Company and Mr Scutt, and renewed for a further period of two years if appropriate. Thereafter renewals, if appropriate, will be on an annual basis.

Mr Scutt or the Company may give not less than six months' written notice to terminate the appointment before the end of the two year period or any renewal thereof. The appointment will terminate automatically upon the occurrence of certain specified events. Under the terms of the appointment, Mr Scutt shall maintain confidentiality on all aspects of the Company's activities and shall inform either Shahrukh Khan or the Company's secretary to disclose any interests of his or his family, of which Mr Scutt and the Company will need to be aware in order to avoid any potential conflicts of interest.

9.4 There is no arrangement under which any Director has waived, or agreed to waive future emoluments nor has there been any waiver of emoluments during the financial period immediately preceding the date of this document.

9.5 The aggregate remuneration and benefits paid to the Directors during the last financial period ended 31 December 2010 (including pensions, bonuses and other benefits in kind) amounted to £77,000. It is estimated that the aggregate remuneration and benefits payable to the Directors for the financial year ending 31 December 2011 under current arrangements in force at the date of this document will be approximately £154,000.

9.6 Save as disclosed in paragraphs 9.1 to 9.3 above, there are no service agreements, existing or proposed, between any Director and any member of the Group which do not expire or cannot be terminated without payment of compensation (other than statutory compensation) within one year and no such contracts are proposed.

10. Property, Plant and Equipment

The Group does not hold any material tangible fixed assets, other than its licences and contract terms.

11. Taxation

11.1 ***General***

11.1.1 The following is a summary based on current tax legislation at the date of this document and relates to the tax position of Shareholders who are resident and ordinarily resident in the United Kingdom for tax purposes. It is a general guide to the UK tax treatment on the acquisition, ownership and disposal of the Ordinary Shares for persons who are beneficial owners of the Ordinary Shares.

11.1.2 The tax position of certain shareholders who are subject to special rules, such as employees and or optionholders, dealers in securities, broker-dealers, insurance companies and collective investment schemes is not considered.

11.1.3 **Any Shareholders who are in any doubt as to their taxation position or who are subject to taxation in any jurisdiction other than the UK should consult their professional advisers immediately. Shareholders should note that the levels and bases of, and relief from, taxation may change and that changes may affect benefits of investment in the Company. This summary is not exhaustive and does not generally consider tax relief or exemptions.**

11.2 ***Taxation of chargeable gains***

11.2.1 For the purposes of UK tax on chargeable gains, the issue of Ordinary Shares will be regarded as an acquisition of a new holding in the share capital of the Company.

11.2.2 To the extent that a Shareholder acquires Ordinary Shares allotted to him, the Ordinary Shares so allotted will, for the purpose of tax on chargeable gains, be treated as acquired on the date of allotment. The amount paid for the Ordinary Shares will constitute the base cost of a Shareholder's holding.

11.2.3 If Shareholders dispose of all or some of their Ordinary Shares, a liability to tax on chargeable gains may, depending on their circumstances and subject to any available exemptions or reliefs, arise.

11.3 ***Stamp Duty and Stamp Duty Reserve Tax***

11.3.1 The paragraphs below are intended as a general guide. Certain categories of person are not liable to stamp duty or stamp duty reserve tax ("**SDRT**"), and others may be liable at a higher rate or may, although not primarily liable for the tax, be required to notify and account for it under the Stamp Duty Reserve Tax Regulations 1986.

11.3.2 No stamp duty or stamp duty reserve tax will generally be payable on the issue of Ordinary Shares.

Shares held outside the CREST system

11.3.3 The conveyance or transfer on sale of the Ordinary Shares will usually be subject to stamp duty on the instrument or transfer, generally at the rate of 0.5 per cent. of the amount or value of the consideration. Stamp duty is charged in multiples of £5 and is rounded up. An obligation to account for SDRT at the rate of 0.5 per cent. of the amount or value of the consideration will also arise if an unconditional agreement to transfer the ordinary shares is not completed by a duly stamped instrument of transfer before the accountable date for SDRT purposes. The accountable date is the seventh day of the month following the month in which the agreement for the transfer is made. Payment of the stamp duty will cancel the liability to account for SDRT. It is the purchaser who is in general liable to account for stamp duty or SDRT.

Shares held within the CREST system

11.3.4 The transfer of the Ordinary Shares in uncertificated form in the CREST system will generally attract a liability to SDRT at the rate of 0.5 per cent. of the amount or value of the consideration. The SDRT is payable on the fourteenth day following the date of the unconditional agreement for the transfer of the ordinary shares.

11.4 ***Income tax***

11.4.1 Under current UK taxation legislation, no withholding tax will be deducted from dividends paid by the Company.

11.4.2 A UK resident individual should be entitled to a non-refundable tax credit (1/9th of the amount of the dividend which is 10 per cent. of the sum of the dividend and tax credit) in respect of a dividend received from the Company, which would be available to offset against any income tax liability arising on the dividend. An individual Shareholder whose income is within the basic rate tax band will be subject to income tax at the rate of 10 per cent. on their dividend income, so that such Shareholders will have no further income tax liability in respect of the dividend. An individual liable to higher rate income tax of 40 per cent. is taxed at 32.5 per cent. on dividend income and an individual liable to the additional higher rate of income tax of 50 per cent. (broadly, an individual with taxable income in excess of £150,000) is taxed at 42.5 per cent. on dividend income. A higher rate tax payer may set the tax credit against their income tax liability on the dividends and so will have further income tax to pay of 22.5 per cent. and 32.5 per cent. respectively.

11.4.3 Shareholders with the charge to UK corporation tax will not normally be subject to UK corporation tax on dividends received from the Company. Such Shareholders should consult their own professional advisers for confirmation of their tax position.

11.5 ***Inheritance tax***

11.5.1 The inheritance tax status of individual Shareholders' Ordinary Shares will depend upon their personal circumstances. Shareholders should consult with their professional advisers if they are concerned with the potential inheritance tax implications of their shares in the Company.

12. Material contracts

The following material contracts are those contracts which have been entered into by a member of the Group (a) in the two years immediately preceding the date of this document (other than in the ordinary course of business); (b) which contain any provision under which any member of the Group has any obligation or entitlement which is material to the Group as at the date of this document (other than those entered into in the ordinary course of business); and (c) any other material subsisting agreement which relates to the assets and liabilities of the Group (notwithstanding whether such agreements are within the ordinary course of business or were entered into outside of the two years immediately preceding the date of this document):

12.1 ***Joint venture agreement***

Pursuant to the terms of a joint venture agreement (the "JV Agreement") between the Company and Sindh Koeladated 6 September 2006, the Company subscribed for 80 per cent. of a newly incorporated joint venture company, Sindh Carbon Energy and is entitled to appoint three directors to the board of SCE (including the chairman). Sindh Koela holds the remaining 20 per cent. of the share capital and is entitled to appoint two directors. The Company is also entitled to nominate a chief executive officer and a chief geologist.

The JV Agreement relates to the exploration for, and mining of, coal and/or other minerals in Sindh Province, Pakistan. The JV Agreement provides that SCE may be funded either by way of an interest free inter-company loan from Oracle or by one or more loans from third parties. However, Oracle has an absolute discretion over whether to make funds available to SCE and, if so, on what terms. Oracle will be responsible for carrying out all exploration and mining operations through SCE, and Sindh Koela will liaise with relevant governmental, regional and regulatory bodies to ensure that operations in Pakistan are conducted in line with the policies set by its Board of Directors, under the Company's guidance.

The JV Agreement also states that the shares in SCE may be listed on the Karachi Stock Exchange with the consent of the Company, and that the capital structure and other requirements related to such listing would be agreed between the Company and Sindh Koela. The JV Agreement is governed by English law. Certain provisions of the JV Agreement have been amended as outlined in paragraph 12.2 below.

12.2 ***Amendment and restatement agreement***

By an amendment and restatement agreement (the "JV Amendment") dated 17 June 2008 certain terms of the JV Agreement dated 6 September 2006 (referred to at paragraph 12.1 above) have been supplemented, amended and restated.

Under the terms of the JV Amendment the Company shall pay up in full, 200,000 shares of 10PKR each in SCE (representing 20 per cent. of its issued share capital) as a loan (the terms of which are outlined in paragraph 12.3 below) to Sindh Koela. The remaining 80 per cent. of the issued share capital in SCE shall be held by Oracle. The JV Amendment contains certain anti dilution provisions. Any increases in the share capital of the JV Company are to be allocated in the aforementioned proportions, i.e. 20 per cent. of the increase in any share capital is to be allotted to Sindh Koela and 80 per cent. of any such increase in share capital is to be allotted to Oracle (the "JV Share Split"). The JV Amendment also states that Oracle shall continue to fund all such subscriptions for shares in SCE by Sindh Koela, by way of a loan to Sindh Koela (see paragraph 12.3 below), until the number of shares held by Sindh Koela reaches 5,000,000 shares of 10PKR each (the "JV Maximum"). Once the JV Maximum is reached, further increases in SCE's share capital shall no longer be subject to the JV Share Split and the directors of SCE shall be free to allot shares in SCE in accordance with the memorandum and articles of association of the company.

12.3 ***JV Partner Loan***

The terms of the loan referred to in paragraph 12.2 above are outlined in a short form loan agreement dated 17 June 2008 and entered into between Oracle and Sindh Koela (the "JV Partner Loan"). The aggregate value of the JV Partner Loan is up to 50,000,000PKR, it carries interest at a rate of 9 per cent. per annum and is repayable by the Sindh Koela on the earlier of:

a) payment of up to 50 per cent. of the Sindh Koela's dividend entitlement to Oracle;

b) repayment in full by the Sindh Koela using its own resources; or

c) any sale or transfer by the Sindh Koela of its shares in the SCE.

The JV Partner Loan is governed by English Law.

12.4 ***JV Company Loan***

Under the terms of a loan agreement entered into between the Company and the SCE dated 17 June 2008 (the "JV Company Loan"), the Company has agreed to make a loan facility available in UK Pounds Sterling for working capital and to secure third party project finance for the SCE, in relation to the exploration for and extraction of coal and/or other minerals in Sindh Province, Pakistan, to be repayable with any applicable interest (at a rate of the Bank of England base rate plus one per cent. per annum) upon demand. Any funds over and above the issued share capital of the SCE are considered a loan for the purposes of the JV Company Loan, and therefore subject to the terms and conditions contained therein.

The JV Company Loan is governed by English law.

12.5 ***Memoranda of understanding***

The memoranda of understanding detailed below are governed by the laws of Pakistan.

12.5.1 *Thar coalfield*

By a memorandum of understanding between SCA (on behalf of the Government of Sindh) and SCE relating to the Thar Coalfields in District Tharparkar, Sindh, Pakistan, dated 3 November 2007 (the "Thar MOU"), SCA agreed to (a) facilitate and assist SCE in obtaining existing data on the exploration licence area contained therein and conducting a feasibility study, (b) on completion of the feasibility study, grant a mining lease to SCE for an initial period of 30 years, extendable by mutual agreement for a further 10 year period, and (c) on completion of the feasibility study, assist the newly incorporated "Operator" company (which is responsible for the development and implementation of the power generation project) in the successful conclusion of project agreements in connection with the proposed construction/commissioning and operation of mine-mouth coal-fired power plants with a total aggregate capacity of 300MW.

The Thar MOU is valid for for a period of 18 months from the date of issue of the exploration licence, and remains valid as a result of the licence extension issued in November 2010.

12.5.2 *Lucky Cement*

The Company and SCE entered into a memorandum of understanding with Lucky Cement Limited ("**Lucky**") on 11 December 2009 (the "**Lucky Cement MOU**"), pursuant to which the Company and SCE proposed to provide Lucky with lignite quality coal from Block VI Tharparkar. The parties agreed to establish a relationship for the exchange of information and future planning so that a coal supply agreement could be entered into (such agreement to replace the Lucky Cement MOU).

12.5.3 *Karachi Electricity Supply Company*

The Company and SCE entered into a memorandum of understanding with Karachi Electricity Supply Company Limited ("KESC") on 12 December 2009 (the "KESC MOU") pursuant to which the parties agreed to coordinate their efforts to promote and develop the operation of minimum 300MW coal fired power plant to be located adjacent to the coal mine to be developed by Oracle and SCE at Block VI Tharparkar. The parties agreed that at an appropriate time a joint development agreement would be signed to replace the KESC MOU.

12.6 ***Thar coalfield Licences***

On 14 November 2007 the Directorate General of Mines and Mineral Development, Government of Sindh, Pakistan formally granted to SCE an exploration licence for coal over an area of 66.1 square kilometres in Thar Coalfield, District Tharparkar, Sindh Province, Pakistan for a period of 3 years (the "Thar Exploration Licence"). Under the Thar Exploration Licence, the following sums are payable by SCE:

a) a security deposit of 100,000 PKR;

b) 991,500 PKR payable annually by the JV Company as ground rental for the Thar Exploration Licence area; and

c) a demarcation fee of 20,000 PKR;

to be made within one month of the date of the licence.

There is no minimum expenditure requirement under the Thar Exploration Licence, although SCE is required to submit quarterly returns to the licensing authority.

The licensing authority may, in certain circumstances, cancel the exploration licence. Such circumstances include any failure by SCE to comply with its obligations under the rules or any condition of the exploration licence.

12.7 Pursuant to a letter to the Company from Libertas dated 29 January 2010, as amended by a letter dated 25 June 2010, Libertas agreed, to act as the Company's financial and nominated adviser in relation to a private placement completed in June 2010, the Placing and Admission. In respect of the Placing and Admission, the Company agreed to pay Libertas a fee of £90,000 (plus VAT), payable as to £45,000, on commencement of work relating to the Admission and by way of four monthly instalments of £11,250, with the balance of £45,000 payable on Admission, together with any reasonable expenses. The Company also agreed to pay a broking commission of 5 per cent. of the gross value of funds raised by investors introduced by Libertas and to grant Libertas a warrant to subscribe for Ordinary Shares in the Company (exerciseable at the Placing Price) equal to one per cent. of the shares issued in the Placing. The agreement is terminable at any time by either party on written notice.

12.8 The Company entered into a memorandum with Regency dated 8 November 2010 pursuant to which Regency was granted a right to subscribe, at the time of Admission or admission of the Company's shares to a recognised market, for such number of shares as would bring its holding of shares in the Company immediately following such listing, to 20 per cent. of the issued share capital of the Company, such shares to be subscribed for at the price determined for any such fundraising carried out at the same time as the listing.

12.9 Pursuant to the terms of a placing agreement dated 14 April 2011 and made between the Company, the Directors and Libertas, Libertas has agreed (conditionally, *inter alia*, on Admission taking place not later than 16 May 2011) as agent for the Company to procure subscribers for up to 30 million new Ordinary Shares (including the new Ordinary Shares issued in respect of funds raised by Novus pursuant to paragraph 12.10 of Part V) (the "Placing Shares") at the Placing Price.

Under the Placing Agreement and subject to its becoming unconditional, the Company has agreed (i) to pay Libertas a broking commission of 5 per cent. on the value at the Placing Price of the Placing Shares for new funds raised by Libertas together with a commission of 1 per cent. on the value at the Placing Price of the Placing Shares for all other funds raised (ii) a corporate finance fee of, in aggregate, £90,000, and (iii) grant to Libertas warrants to subscribe for new Ordinary Shares, at the Placing Price, in respect of an amount equal to 1 per cent. of the Placing Shares in each case together with any applicable VAT.

The Company will pay certain other costs and expenses (including any applicable VAT) of, or incidental to, the Placing including all fees and expenses payable in connection with Admission, expenses of the registrars, printing and advertising expenses, postage and all other legal, accounting and other professional fees and expenses.

The Placing Agreement contains representations, warranties and indemnities given by the Company and the Directors to Libertas as to the accuracy of the information contained in this document and other matters relating to the Group and its business. Libertas is entitled to terminate the Placing Agreement in certain specified circumstances prior to Admission. The terms of the Placing Agreement apply *mutatis mutandis* to the Conditional Placing.

12.10 Pursuant to a letter dated 14 April 2011, the Company engaged the services of Novus to act as a broker to the Company to raise new funds as part of the Placing by Libertas. The Company agreed to pay Novus (i) a broking commission of 5 per cent. of the value at the Placing Price of the Placing Shares for new funds raised by Novus together with a commission of 1 per cent. on the

value at the Placing Price of the Placing Shares for all other funds raised and (ii) grant to Novus a Warrant to subscribe for new Ordinary Shares, at the Placing Price, in respect of an amount equal to 1 per cent. of the Placing Shares, in each case together with applicable VAT.

12.11 A nominated adviser and broker agreement between the Company and Libertas dated 14 April 2011 pursuant to which Libertas agreed, conditional on Admission, to act as nominated adviser and broker to the Company and, *inter alia*, provide the services in connection therewith pursuant to the AIM Rules for Companies. The Company agreed to pay an annual retainer fee of £50,000 (plus VAT) and reasonable expenses, payable quarterly in advance. The appointments are terminable by either party on three months written notice after the initial period of 24 months in respect of the appointment as nominated adviser and 12 months in respect of the appointment as broker.

12.12 Pursuant to lock-in deeds dated 14 April 2011 each of the Directors has undertaken to the Company and Libertas that, except in certain limited circumstances, they will not dispose of any interest in the Ordinary Shares (including warrants) held by them for a period of twelve months from the date of Admission and, for the following twelve months, that they will only dispose of their holdings with the prior written consent of the Company's nominated adviser and broker from time to time (such consent not to be unreasonably withheld or delayed) and further provided that any such disposal shall be effected through the broker in such orderly manner as the broker shall reasonably require with a view to maintaining an orderly market in the issued share capital of the Company.

12.13 Pursuant to lock-in deeds dated 14 April 2011, each of Starvest Plc, Sunvest Corporation Limited and Mr Bruce Rowan have undertaken to the Company and Libertas not to dispose of any Ordinary Shares held by them for a period of twelve months from the date of Admission, except in certain limited circumstances permitted by the AIM Rules, and for the following twelve months, that they will only dispose of their holdings with the prior written consent of the Company's nominated adviser and broker from time to time (such consent not to be unreasonably withheld or delayed).

12.14 Pursuant to a lock-in deed dated 14 April 2011 Mr Conrad Windham has undertaken to the Company and Libertas not to dispose of any Ordinary Shares held by him for a period of six months from the date of Admission, except in certain limited circumstances permitted by the AIM Rules, and for the following twelve months, that he will only dispose of his holdings with the prior written consent of the Company's nominated adviser and broker from time to time (such consent not to be unreasonably withheld or delayed).

12.15 Pursuant to a letter dated 11 April 2011, Regency notified that the Company that it would exercise its right, as set out in the memorandum of agreement summarised at paragraph 12.8 of this Part V, to subscribe for up to 30,427,750 new Ordinary Shares (which would amount to approximately 20 per cent. of the issued share capital of the Company following the issue of such shares) at a price of 10p per Ordinary Share. The letter provides that the issue and allotment of the new Ordinary Shares by the Company will be deferred until such time after Admission, but before 11 April 2012, as the Directors are granted sufficient authorities by the Shareholders to allot these shares and to do so for cash on a non pre-emptive basis. A resolution to this effect will be tabled at the annual general meeting of the Company which the Directors anticipate will be held in June 2011.

13. Related party transactions

The Company has confirmed that Mr Shahrukh Khan's father, Mr Shafiqur Rehman Khan is currently a holder of 30 per cent. of Sindh Koela. Sindh Koela has a 20 per cent. shareholding in Sindh Carbon Energy which has entered into and will enter into various agreements with the Company. The Company has not, since its incorporation, undertaken or been involved in any related party transaction other than as referred to in this paragraph 13.

14. Working capital

The Directors are of the opinion, having made due and careful enquiry, and after taking into account the net proceeds of the Placing to be received by the Group, that the working capital available to the the Company and the Group will be sufficient for its present requirements, that is, for at least the next 12 months from the date of Admission.

15. Litigation

No member of the Group has engaged in, nor is currently engaged in any governmental, legal or arbitration proceedings which may have had during the twelve months preceding the date of this document a significant effect on its financial position nor are any such proceedings pending or threatened against any member of the Group.

16. Pakistan's Mining Regulatory Regime

16.1 *Regulation of Mines and Mining*

The general position under Pakistan law is that all mines and minerals are the property of the Government, being, in relation to certain minerals related to nuclear energy generation, mineral oil and natural gas the Federal Government and in relation to other mines and minerals (including, without limitation, coal) the relevant Provincial Government. Consistent with this principle, under the Constitution of the Islamic Republic of Pakistan, 1973 ("Constitution") and the Mines and Oil-fields and Mineral Development (Federal Government) Act, 1948 ("1948 Act") the power to legislate over minerals (other than certain minerals related to nuclear energy generation, mineral oil and natural gas) rests with the relevant Provincial Government.

In the context of SCE, the relevant Provincial Government is the Government of the Province of Sindh ("GOS") which has promulgated the Sindh Mining Concession Rules, 2002 ("Rules") pursuant to power conferred on it by the 1948 Act. The 1948 Act is essentially an enabling legislation empowering the Federal Government and the relevant Provincial Government to frame rules in relation to mines, oil-fields and mineral development.

The Rules came into force in March 2002 and repeal and replace the earlier Pakistan Mining Concession Rules, 1960 and all notifications made pursuant to the earlier rules. The Rules are intended to put in place a modern and investor friendly regulatory regime by providing more legal certainty and transparency in the decision making by the licensing authority and afford a degree of protection against unilateral or other adverse decisions against the holder of a mineral title by the licensing authority. The salient terms of the regulatory regime introduced by the Rules is summarised below.

Types of Mineral Titles

Subject to the Rules, any person may be issued a mineral title by the licensing authority which is the Director General Mines and Minerals of the Government of Sindh Mines and Mineral Development Department ("DG Mines and Minerals" or "licensing authority"). The mineral titles that may be issued under the Rules are, *inter alia*, exploration licences and mining leases.

In relation to the development of coal mines, the Rules expressly provide that the persons or companies interested in the development of coal mines shall submit an application to the Sindh Coal Authority ("SCA") which shall scrutinise the application and submit the same to the SCA Board for approval. Upon approval of the Board, the Rules envisage that the SCA shall sign a Memorandum of Understanding ("MOU") with the applicant and recommend grant of the relevant mineral title to the applicant in accordance with the Rules.

Under the Rules no person shall conduct exploration operations, mining operations or reconnaissance operations except under a mineral title or mineral permit granted by the licensing authority pursuant to the Rules. Ordinarily the maximum number of mineral titles that may be issued to an applicant in respect of any particular mineral shall not exceed two.

General conditions attached to a Mineral Title

The Rules also prescribe certain "general conditions" which, in addition to any conditions that may be contained in a mineral title, are deemed to be incorporated into the terms of every mineral title.

Under the Rules the licensing authority also has broad powers to issue directions in writing to the holder of the mineral title with due regard to good exploration or mining practices in relation to a host of matters.

Rights of the holder of an Exploration Licence under the Rules

In relation to the rights of the holder of an Exploration Licence, the Rules provide that, subject to the Rules and conditions of the Exploration Licence, an exploration licence shall confer on the licensee: (a) the exclusive right to carry on exploration operations in the exploration area in respect of any mineral to which the licence relates; (b) subject to the rights of the surface holder, the right to enter and occupy the land which comprises the exploration area for the purpose of carrying out exploration operations; (c) the right to take and use water on or flowing through such land for any purpose necessary for exploration operations subject to and in accordance with the provisions of the relevant legislation to water but in the exercise of such right, the licensee shall not deprive the lands, villages or houses or watering places for cattle of a reasonable supply of water; (d) with the prior permission in writing of the licensing authority generally or in any particular case, the right: (i) to remove from the exploration area any mineral or sample thereof, for the purposes of testing, assaying or pilot plant studies, from any place where it is found or incidentally won in the course of such exploration operations; and (ii) to sell or otherwise dispose of limited amounts of any such mineral excavated during exploration operations; (e) save in relation to construction of "ancillary works" which is subject to permission of the licensing authority, to do all other things, including the erection or construction of ancillary works in the exploration area, as may be reasonably necessary for, or in connection, with any exploration operations in the exploration area.

The expression "exploration operation" is defined by the Rules to mean "any operation carried on in connection with exploration, including any accessing, extraction or incidental winning of any mineral for the purpose of mineralogical examination, assaying, test work or marketability surveys, but such operations shall not include commercial marketing."

Term and Renewal of Exploration Licence

Under the Rules, the initial term of an Exploration Licence may be up to three (3) years as specified by the licence. There is also provision for renewal of the Exploration Licence for a further period of up to three (3) years and subject to further conditions another renewal for up to one (1) year.

Where an application is made for renewal of an Exploration Licence, the existing licence does not expire until the application is refused, withdrawn or lapses. Where an application is made by the holder of an Exploration Licence for the grant of a Mining Lease in relation to an area of land in or which constitutes the exploration area and a mineral to which the Exploration Licence relates, the Exploration Licence does not expire in relation to that area of land until the application is refused, withdrawn or lapses or, if the application is granted, until the Mining Lease is granted.

An application for renewal of an Exploration Licence must be made no later than ninety (90) days prior to its expiry date although there is provision for allowing a later renewal application for "good cause" shown at the discretion of the licensing authority. The Rules envisage that normally the period of renewal shall not exceed one (1) year. In the case of a second renewal, the applicant is required to satisfy the licensing authority that such a renewal is necessary for the completion of a full feasibility study of the discovered deposits and that the proposed activities could not have been reasonably completed during the period of the first renewal. Also, the second renewal will not be made in respect of land greater in extent than fifty per cent. (50 per cent.) of the exploration area immediately prior to the date of that application or such other proportion of the exploration

area as the licensing authority may determine on good technical or other reasonable grounds. An application for renewal is required to be accompanied by documents and reasons in support of the renewal of the term of the Exploration Licence.

Obligations of the holder of an Exploration Licence

The Rules prescribe that the holder of an Exploration Licence shall: (a) commence operations within three (3) months of the issue of the licence and carry out exploration operations in the exploration licence in accordance with good exploration practices; (b) take all reasonable steps necessary to secure the safety, welfare and health of persons employed for the purposes of those operations in the exploration area and to protect the environment; (c) maintain in good conditions and repair all structures equipment and other goods in the exploration area and used in connection with the exploration operations; (d) remove from the exploration area all structures, equipment and other goods not used or intended to be used in connection with the exploration operations; (e) take reasonable steps to warn persons who may from time to time be in the vicinity of any such structures, equipment or other goods of the possible hazards resulting therefrom; (f) notify the licensing authority of the discovery of a deposit of any mineral included or not in the Exploration Licence; (g) allow existing and future title holders of any area which is comprised in or adjoins or is reached by the area to which his title relates, all reasonable facilities or access thereto; and (h) notify the licensing authority within ten (10) days after making a discovery of a deposit of any mineral other than a mineral included in the Exploration Licence.

Minimum Work Obligations

Where an Exploration Licence specifies a minimum work programme or expenditure by the licensee, the licensing authority is required to be duly informed of the progress and details of the work programme and expenditure.

Records to be maintained by the holder of an Exploration Licence

The Rules also contain detailed provisions for records and reporting by the licensee.

Notices of grant, renewal, transfer, surrender or cancellation of mineral title to be published

The licensing authority is required to publish notice of every (i) application for a mineral title; (ii) grant of a mineral title; (iii) renewal of a mineral title; and (iv) transfer, surrender or cancellation of a mineral title, in the Official Gazette of the GOS. An existing holder of a mineral title can make written representation to the licensing authority within twenty-one (21) days of the publication of a notice of an application for a mineral title and the licensing authority may in deciding whether or not to grant a mineral title take into account such representation.

Rights of the holder of a Mining Lease under the Rules

Subject to the Rules and the conditions of a Mining Lease, a Mining Lease confers on the holder thereof: (a) the exclusive right to carry on mining operations in the mining area in question in respect of minerals to which the Mining Lease relates; (b) the right to: (i) carry on in the mining area in conjunction with mining operations, exploration operations in relation to the mineral; and (ii) enter and occupy the land which comprises the mining area and for the purpose of carrying on mining operations and exploration operations as mentioned above; (c) the right to remove from the mining area the mineral from any place where it was found or mined in the course of mining operations to any other place within or outside Sindh or subject to such other permission as may be required under any relevant law, to any place outside Pakistan; (d) the right to take and use water on or flowing through such land for any purpose necessary for exploration operations subject to and in accordance with the provisions of the relevant legislation to water but in the exercise of such right, the licensee shall not deprive the lands, villages or houses or watering places for cattle of a reasonable supply of water; (e) the right to sell or otherwise dispose of the mineral subject to such conditions of the Mining Lease in relation to the satisfaction of the internal requirements of Pakistan; (f) subject to the requirement to obtain consent from the licensing authority for erection or construction of "ancillary works", the right to do all other

things and carry on such other operations, including the erection or construction of ancillary works as may be reasonably necessary for or in connection with the mining or exploration operations and activities referred to above.

The expression "mine" is defined by the Rules to mean, (i) when used as a noun, any surface or underground excavation, including quarry, where any operation for the purpose of searching for or obtaining/winning a mineral has been or is being carried on and includes all works, machinery, tramways, rope-ways, headings and siding, whether above or below ground, in or adjacent or belonging to or appurtenant to a mine, but does not include the manufacturing or processing plant; or (ii) when used as a verb, means to carry on "mining operations".

Term of a Mining Lease

Subject to the Rules and the terms of the Mining Lease in question, a Mining Lease shall be valid for such period not exceeding thirty (30) years extendable for a further period as determined by the licensing authority. Where an application is made for the renewal of a Mining Lease, the lease does not expire until the application is refused, withdrawn or lapses. A Mining Lease must normally be executed within three (3) months of the communication of its approval failing which it is deemed to have lapsed unless the licensing authority is satisfied that the delay in execution was due to circumstances beyond the applicant's control.

Grant a Mining Lease to the holder of an Exploration Licence

Subject to the Rules, where the holder of an Exploration Licence makes an application for a Mining Lease in respect of an area of land in or which constitutes the exploration area and the any mineral included in such Exploration Licence "the licensing authority shall grant a Mining Lease."

Requirements to be fulfilled for the grant of a Mining Lease under the Rules

However, the Rules provide that a Mining Lease shall not be granted unless: (a) the feasibility study shows that the mine can be profitably developed and operated; (b) the proposed plan for the development and operation of the mine and the programme for the mining operations of the applicant will ensure efficient, beneficial and timely use of the mineral resources; (c) the applicant has or can obtain the technical and financial resources and experience to carry out the mining operations effectively; (d) the applicant is a fit and proper person to hold the Mining Lease; (e) the proposals submitted with the application are satisfactory; (f) it is in the interest of the development of the mineral resource of Sindh to grant the Mining Lease; (g) the applicant is not in default or the licensing authority is satisfied that the default in not substantial or other special circumstances exist which justify the grant of the Mining Lease.

The interests of an existing holder of an Exploration Licence applying for a Mining Lease are protected by the Rules to a certain degree by providing that the licensing authority shall not refuse to grant a Mining Lease (or mineral title) on the grounds set out in paragraphs (a) to (f) above unless: (i) the licensing authority has informed the applicant in writing of its intended refusal and grounds therefor; (ii) afforded the applicant an opportunity to make within such reasonable period as may be specified in the notice, representations in relation to all matters relating to its intention and if the applicant so desires, to make proposals in relation to any such matters; and (iii) take such representations into consideration. Similarly, the licensing authority cannot refuse to grant a Mining Lease on the basis of a default by the applicant unless: (i) it has informed the applicant by notice in writing of its intended refusal setting out the particulars of the alleged default; (ii) required the applicant to make representations in relation to the alleged default or to remedy the default before a date specified in the notice; and (iii) the applicant fails to remedy the default or make such representations as, in the opinion of the licensing authority, would remove the ground for the intended refusal. Furthermore, the licensing authority is barred from refusing the grant of a Mining Lease on the ground that any proposal submitted with the application are inadequate or unsatisfactory unless the licensing authority has by notice in writing informed the applicant accordingly and afforded the applicant a reasonable opportunity to modify its proposals.

Renewal of a Mining Lease

An application for the renewal of a Mining Lease must be made not later than six (6) months before the date of expiry but there are provisions for submission at a later date at the discretion of the licensing authority "for good cause shown".

Commencement of Operations under a Mining Lease

The holder of a Mining Lease must commence mining operations within a period of six (6) months of the issuance of the Mining Lease and carry out those operations in accordance with the approved plan for the development and operation of the mine.

Requirements to be satisfied by the Applicant for a Mining Lease

An application for a Mining Lease must be made by a company incorporated under Pakistan law. An application for a Mining Lease is required to be accompanied by host maps, plans and other detailed information relating to the applicant as well as the proposed development plan including, *inter alia*, the following matters: (a) particulars as may be necessary to determine the applicant's technical and financial resources, including the applicant company's audited financial statements; (b) a technological report on mining and treatment possibilities; (c) relevant feasibility studies, detailed plans for development and operation of the mine and the programme of proposed mining operations including a forecast of the date on which the applicant intends to work for profit; the capacity and expected rate of production and scale of operations; the anticipated overall recovery of the mineral product and nature of the products; (d) an Environmental Impact Assessment in terms of the Environmental Protection Act, 1997; (e) identification of the adverse environmental affect of the proposed mining operations; (f) proposals for the prevention of pollution, the treatment and disposal of waste and other environmental matters and risks specified therein; (g) forecasts of the capital investment, operating costs and revenues and anticipated type, source and extent of financing; (h) statement of expected infrastructure requirements; (i) submissions on other matters considered relevant by the licensing authority or the applicant.

The licensing authority is empowered to demand security in the form of a bank guarantee or a parent company guarantee (or otherwise as may be determined by it) at the time of grant of an Exploration Licence and a Mining Lease for compliance with the holder's obligations under the Rules and the mineral title in question.

Cancellation of Mineral Titles under the Rules

The licensing authority has been conferred broad powers for the cancellation of a mineral title on the basis, *inter alia*, of: a default by the holder with the terms of the Rules or the licence; or the unauthorised use of the licenced or leased territory; or failure to make timely payment of the fees due under the Rules; or the winding-up, insolvency or bankruptcy of the holder of the mineral title. In each case, however, the licensing authority must give written notice (usually thirty (30) days) of the intended grounds for cancellation to the holder and afford the holder of the mineral title the opportunity to make written submissions before the licensing authority.

The licensing authority must also take into account the response of the holder of the mineral title as well as any action taken by the holder of the mineral title to remove the grounds for cancellation and to prevent the recurrence of similar grounds.

A mineral title cannot be cancelled on account of the failure to make payment of any amount under the Rules if the holder of the mineral title makes payment thereof along with any penalty payable under the Rules. The rights of the holder of the mineral title cease upon cancellation but the cancellation does not affect any liability incurred or accrued prior to the cancellation.

Surrender of all or part of the land covered by a Mineral Title

The Rules also specify the procedure for the surrender of all or part of the land covered by a mineral title which is subject to the permission of the licensing authority. Such surrender does not affect the accrued liability of the holder of the mineral title.

Appeal and Judicial Review against decisions of the licensing authority

The Rules also provide for the appeal and judicial review of any decision of the licensing authority by any person aggrieved by such decision.

In the first instance an appeal (to be filed within thirty (30) days of the impugned decision) may be filed before the Secretary of the Mines & Mineral Department (the administrative head of the department) but the bringing of the appeal does not affect the operation of the impugned decision pending disposal of the appeal. The Secretary of the Mines & Mineral Department after consulting the mines committee established under the Rules may rescind or affirm the impugned decision or give a new decision in substitution of the impugned decision within a period of thirty (30) days from the date on which the appeal is brought.

Any person aggrieved by the decision of the Secretary of the Mines & Mineral Department may apply for a judicial review of that decision or refer the matter to arbitration if provided for in the mineral title in question.

Transfer and Assignment of a Mineral Title

The transfer or assignment of, or any right or interest to or in a mineral title shall have no effect unless the licensing authority in writing approves that transfer or assignment and the transfer or assignment is to a person capable of holding the mineral title in question under the Rules. The licensing authority is empowered to grant approval subject to such conditions as it may deem necessary in the circumstances. However, it cannot give its approval to a proposed transfer or assignment:

(a) of an exploration licence during the first two years of its term unless the authority considers that there are special reasons for giving such approval; or

(b) unless the licensing authority is satisfied that the proposed assignee or transferee: (i) has the financial and technical resources to undertake the obligations under the mineral title; (ii) is a fit and proper person to hold the mineral title; and (iii) the proposed assignment or transfer will not adversely affect operations under the mineral title.

Rights over data

In the context of rights over data, the Rules provide that GOS shall have the exclusive right to all data including geological, geo-chemical, petrophysical, engineering, pit logs, magnetic tapes, cores and production data, as well as all interpretive and derivative data including reports, studies, analysis, interpretations, bulk sampling results, assaying results, evaluations and other information in respect of exploration or mining operations. However, the holder of a mineral title shall have the right to make use of data referred free of cost, for the purposes of exploration or mining operations and to retain copies or samples of material or information constituting the data. Data permitted to be used or retained as aforesaid which is not in the public domain, shall not be disclosed to any person without the prior consent of the licensing authority, except as may be necessary for the purpose of or in connection with exploration and mining operations or as required by law or for the purpose of arbitration or litigation.

16.2 ***Thar Coal & Energy Board (the "TCEB")***

The TCEB was established in July 2008 by the Federal Government of Pakistan and the Provincial Government of Sindh, in order to fast track the potential exploitation of Thar's coal resources for power generation. The main purpose of the TCEB is to function as a 'one-stop' organisation and decision taking body on behalf of all the Ministries, Departments and agencies of the GOP and the GOS and thereby facilitate and encourage prospective investment in, and the expeditious development of, coal based power projects in Thar to address Pakistan's energy needs. Furthermore, the TCEB will assist with the implementation of the Government's Power Policy and assist investors in obtaining the necessary consents and with the negotiation, finalisation and execution of contractual agreements. The Power Policy focuses on the use of indigenous resources for power generation and is designed to attract international investment for the development of indigenous coal-based power plants in Pakistan.

17. Consents

17.1 Price Bailey LLP has given and not withdrawn its written consent to the issue of this document with the inclusion in it of its accountant's report and letter set out in Part IV and the references to their report and to their name in the form and in the context in which they appear. Price Bailey LLP is a limited liability partnership registered in England and Wales under number OC307551 and its registered office is at Causeway House, 1 Dane Street, Bishop's Stortford, Herts CM23 3BT.

17.2 Libertas has given and not withdrawn its written consent to the issue of this document with the inclusion in it of its name and references to it in the form and context in which they appear. Libertas is registered in England under number 4271746 and its registered office is at 16 Berkeley Street, London W1J 8DZ. Libertas is regulated by the Financial Services Authority and is acting in the capacity as nominated adviser and broker to the Company.

17.3 Dargo has given and has not withdrawn its written consent to the issue of this document with the inclusion in it of their report in Part III and the references to its report and to its name in the form and in the context in which they appear. Dargo is registered in England and Wales under number 3243885 and its registered office is at Ashfield House, Mill Lane, Pulham Market, Diss Norfolk IP21 4XL.

18. General

18.1 Save as disclosed in this document, there has been no significant change in the financial or trading position of the Group since 31 December 2010, being the end of the last financial period for which financial information has been published.

18.2 The total costs and expenses of, or incidental to, the Placing and Admission payable by the Company are estimated to amount to approximately £0.5 million (excluding VAT). The total net proceeds of the Placing are expected to amount to approximately £2.5 million.

18.3 Save for the KhoreWah Exploration Licence and the Thar Exploration Licence and as otherwise disclosed in this document, the Directors believe that the Company is not dependent on patents or other intellectual property rights, licences, industrial, commercial or financial contracts or new manufacturing processes which are of material importance to the Company's business or profitability.

18.4 The Company's accounting reference date is 31 December.

18.5 Save as disclosed in this document, no person (excluding professional advisers otherwise disclosed in this document and trade suppliers) has received, directly or indirectly, from the Company within the 12 months preceding the date of this document; or entered into contractual arrangements (not otherwise disclosed in this document) to receive, directly or indirectly, from the Company on or after Admission any of the following:

18.5.1 fees totalling £10,000 or more;

18.5.2 securities in the Company with a value of £10,000 or more calculated by reference to the Placing Price; or

18.5.3 any other benefit with a value of £10,000 or more at the date of Admission.

18.6 Assuming that the Placing Shares are fully subscribed, the Existing Ordinary Shares will account for approximately 86 per cent. of the Enlarged Share Capital following the Placing and Admission. Holders of Existing Ordinary Shares will be diluted by the subscription for the 30 million Placing Shares, which will represent a 14 per cent. immediate dilution of the holders of Existing Ordinary Shares.

18.7 Save as disclosed in the document, the Directors are not aware of any exceptional factors which have influenced the Company's activities.

18.8 Save as disclosed in this document, as far as the Directors are aware there are no environmental issues that may affect the Group's utilisation of its tangible fixed assets.

18.9 Save as disclosed in this document, the Directors are not aware of any trends, uncertainties, demands, commitments or events that are reasonably likely to have a material effect on the Company's prospects for the current financial year.

18.10 Save as disclosed in this document, there are no investments in progress, and there are no future investments on which the Directors have already made firm commitments which are significant to the Company.

18.11 Where information and statements have been sourced from a third party, this information has been accurately reproduced. So far as the Company and the Directors are aware and are able to ascertain from information provided by that third party, no facts have been omitted which would render the reproduced information inaccurate or misleading.

18.12 Since 5 July 2006, the date of incorporation of the Company, there has been no takeover offer (within the meaning of Part 28 of the 2006 Act) for any Ordinary Shares. The Company is not aware of the existence of any third party public takeover bid pursuant to the rules of the City Code, or any circumstances which may give rise to any takeover bid.

18.13 In connection with Admission, the Company also intends to apply for the Ordinary Shares to be traded on PLUS Markets' electronic trading platform. Save as aforesaid and other than the current application for Admission and the Company's existing admission to the PLUS-quoted market, a market operated by PLUS Markets, the Ordinary Shares have not been admitted to dealings on any recognised investment exchange nor has any application for such admission been made or refused nor are there intended to be any other arrangements for dealings in the Ordinary Shares.

18.14 Ordinary Shares are issued and allotted in registered form under the laws of England and Wales and their currency is pounds sterling.

18.15 The Placing Price of 10 pence per Ordinary Share represents a premium of 9.9 pence over the nominal value of 0.1 pence per Ordinary Share and is payable in full on Admission under the terms of the Placing.

18.16 There are no arrangements in existence under which future dividends are to be waived or agreed to be waived.

19. Availability of this document

Copies of this document are available free of charge for inspection during normal business hours on any weekday (Saturdays, Sundays and public holidays excepted) at the registered office of the Company and at the offices of Trowers and Hamlins LLP, Sceptre Court, 40 Tower Hill, London EC3N 4DX for at least one month from the date of Admission. This document will also be available for download from the Company's website at www.oraclecoalfields.com.

Dated: 14 April 2011