

SUBSIDENCE PREDICTION REPORT  
FOR  
**BRAHMAPURI UNDERGROUND COAL PROJECT**  
**(PENCH- KANHAN VALLEY COALFIELD)**

Village: Bichua Pathar  
Tehsil – Parasia  
Dist. Chhindwara (M.P.)

*Submitted to*  
**M/S PUSH STEELS & MINING (P) LTD.**  
**751, KUNDEWALAN ST. AJMERI GATE**  
**NEW DELHI – 110 006**



*Prepared by*  
**CENTRE OF MINING ENVIRONMENT**  
**DEPT. OF ENVIRONMENTAL SCIENCE & ENGG.**  
**INDIAN SCHOOL OF MINES**  
**DHANBAD – 826 004 (JHARKHAND)**

MARCH 2013



## INTRODUCTION

Brahmapuri underground coal project is proposed to be developed by M/S PUSHP STEELS and MINING PVT.LTD to meet captive coal requirement of its Steel Project in Chhattisgarh. This coal block is situated in Pench-Kanhan Coalfield in WCL command area, and is proposed to produce 0.360 MTY non coking coal. The total area is 360 hectares (as per CMO'L). GR of the area was prepared by the MECL in 1985.

## LOCATION

Village : Bhikhu Pethar, Sirguda, Chhindwara and Kukurmunda

Tehsil : Parasia

District : Chhindwara

State : Madhya Pradesh (India)

The block is accessible by all weather metalled road about 150 Kms from Nagpur via Chhindwara to Shivpuri mine of WCL which is about 15 Kms east of Parasia town.

Geological Location : the Brahmapuri coal block occurs in Survey of India Topsheet No. 551/16 and is bounded by Latitude : 22° 12' 27" to 22 14' 00" N

Longitude : 78° 51' 15" to 78 52' 45" E

## COMMUNICATION

Road -- The block is connected to SH-19, Near Parasia Town of Chhindwara District, Madhya Pradesh.

Rail -- nearest railway station is Parasia about 12 KM from the Block.

## TOPOGRAPHY

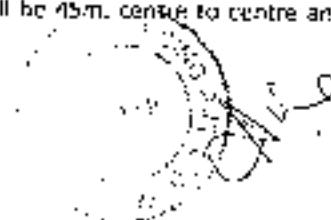
The block is a rugged terrain comprising two parallel ridges running east-west in central part, elevating of which reach up to a max of 810m from surface levelled as low as 750m in south east corner of the block. The entire area is capped by a thick cover of "DECCAN TRAP" (Basalt) 50m to more than 150m thick.

## DRAINAGE

The Gullies and Nullahs originating from the Central ridges become active during monsoon and flow in the direction to meet the main drainage channel in Pench river flowing 2.5 to 3.0 kms to west and south of the block.

## Method of Work

The mine will be worked by Bord and Pillar method of mining and depillaring by caving. The size of pillar will be 45m. centre to centre and gallery width will be 4.8 m as per Coal Mine Regulations.



There are only two workable seams i.e., 1C and VA having good potential. Only 1C is present in the entire area. Besides, there are other seams in patches to be worked contiguously.

#### **Rock Characteristics of the area**

The whole block is capped by a thick (60m to 120m) Deccan Trap which is massive and hardest of all rocks because of its igneous origin followed by an equally thick layer (generally more than 100m) of Motur, which is of sedimentary origin and rich in clay. It is expected that cracks and fissures developing in Motur during depleting with caving will be filled up with clay which swells when come in contact with water. The Deccan Trap is expected to behave like an unbreakable shield preventing "Subsidence" on surface.

#### **Life of the Mine**

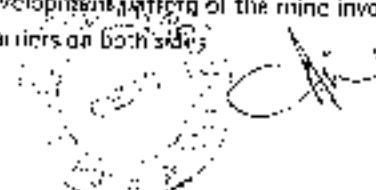
30 years as per Mining Plan.

#### **FOREST COVER**

Pushp Steele & Mining Pvt. Ltd. proposes to carry out underground mining in Brahmapuri Block at Kankhan valley coalfield in Chhindwara district of M.P. It is proposed that underground mining will be carried out underneath and in the vicinity of forest cover. The Mining Plan of the mine has been prepared and approved by the competent authority. The environment clearance for the said coal block has also been granted subject to the grant of Stage - I forest clearance vide Ministry of Environment & Forests, New Delhi (MoEF) vide their letter bearing file no. J-11015/134/2009.IA.II (M) dated 15.02.2013.

The forest clearance is now proposed to be sought from the Forest Wing of the MoEF. The typical features of proposed mine are as given below.

1. The mine has typical configuration of coal measure rocks with the presence of a number of seams overlain by about 30-119 meters of Barakar Measures, overlain by Motur clays varying in thickness from 38 - 149 meters, which are further overlain by Deccan Trap consisting of Basalts of thickness ranging from 45-137 meters.
2. The presence of Motur clays in large thickness along with the overlie Deccan trap assumes importance due to the fact that in the nearby underground mines the trap seem to have played a bridging role by not allowing main falls to take place and thereby causing invisible subsidence on the surface. Earlier subsidence studies in this coalfield have shown typical characteristics of Motur clays which included swelling during monsoonal period.
3. In the proposed mining area, the Barakar Measures and the Motur Clays are significantly disturbed by the presence of a large number of step faults and a 40-50 meters thick dyke. This has resulted in the planning of the mine by Road and Pillar system with caving following well known methodology of pillar extraction by slicing.
4. Proposed development pattern of the mine involves Block/Panels of varying length and width with barriers on both sides.



5. Although there are a number of seams in the block, the only independent workable seams are IC and SA. Besides these, there are a few more workable patches in other seams which can be worked contiguously.

The guidelines in respect of underground mining in stratified deposits in forest areas are as quoted below:

"The mining plan in stratified deposits in forest areas should include the predicted subsidence, slope, and strain values and their impact on forests and surface and their mitigation. The maximum tensile strain of 20 mm/meter and thereby the surface crack of width of about 200 - 300 mm is to be permitted in the forest area. Accordingly the mine plans should be made to restrict the subsidence movement within the limits with the provision of mitigation measures."

It is, therefore, directed that all mining plans in respect of coal and other major minerals should be first examined by institutes like Indian School of Mines, Dhanbad, CMRI, Dhanbad, IBM, Nagpur and subsidence analysis along with the mitigation measures suggested by them should be submitted along with the proposal. The surface layout of the mining area should be designed so as to use minimum possible land and wherever feasible the surface facilities should be planned over non forest areas."

(The above guidelines have been taken from the book entitled "Mining Environment Management Manual" by Naresh Chandra Saxena, Gurdeep Singh, Pramod Pethak, Bhakesh Chandra Sarker and Asim Kumar Pal and Published by Scientific Publishers (India), Jodhpur, pp. 93.

#### Subsidence Prediction

Subsidence Prediction in respect of 71 Panels/blocks is presented in the Table given below. Subsidence prediction was done using the methodology suggested in the "SUBSIDENCE MANAGEMENT HANDBOOK" and guidelines followed through 3-D numerical model, based on the subsidence research work in the country. The maximum subsidence, slope and strains likely to take place on the surface with the assumption that the trap rocks may behave in the manner similar to the underlying ones without causing the bridging effect. If the trap rocks cause the bridging effect, they may not allow this magnitude of the subsidence. However the maximum predicted subsidence movements are not likely to cause any noticeable impact on the surface topography and the forest area and the anticipated strains are well below the permissible limits for the forest areas.



### Predicted Subsidence over the Block/Planes

Block/Panel	Width	Depth	w/n	Max subsidence	Max slope	Max compressive strain	Max tensile strain	Remarks
	m	m	Mm	mm/in	mm/m	microstrain	microstrain	
1 B5i	130	250	0.52	175	7.06	1.33	1.30	
2 B5ii	140	250	0.56	240	3.55	1.70	1.86	
3 B8	140	230	0.61	310	4.58	2.20	7.41	
4 BKII	140	230	0.61	310	4.58	2.29	2.41	
5 B9	140	200	0.70	435	6.52	3.20	3.42	
6 B10	170	250	0.68	405	5.02	2.51	2.64	
7 B11	80	250	0.32	0	0	0	0	
8 B12	140	265	0.53	185	2.65	1.33	1.39	
9 B13	120	260	0.46	105	1.78	0.89	0.93	
10 B15	160	272	0.58	260	3.38	1.69	1.77	
11 B16	120	255	0.47	115	1.94	0.97	1.02	
12 B17i	120	190	0.63	340	6.00	3.00	3.15	
13 B17ii	90	200	0.45	95	2.14	1.07	1.12	
14 B18	80	225	0.36	30	0.67	0.33	0.35	
15 B19	80	200	0.40	40	1.00	0.50	1.52	
16 B21	120	200	0.60	30	0.52	0.26	0.27	
17 B22	100	200	0.50	145	2.90	1.45	1.52	
18 B23i	100	210	0.48	125	2.50	1.25	1.31	
19 B23ii	100	220	0.45	100	2.04	1.02	1.07	
20 B24	100	220	0.45	100	2.04	1.04	1.07	
21 B25	150	200	0.75	515	7.39	3.70	3.88	

### **Analysis of Predicted Subsistence**

The values of predicted maximum subsidence slope and strains over the 21 Blocks/Panels to be extracted at the mine by Bord and Pillar System with caving are given in the Table above. It can be seen from the data given in the Table that:

- The width of the Block/Panel is varying from about 80 to 170m. It is also seen in the projection plan that the width in the individual blocks/panels also varies in accordance with the working width available in the space between the faults.
  - The depth of the Blocks/Panels is ranging from 150 to 277m mainly because of two factors, i.e., the undulating nature of surface topography and the presence of step faults in the sedimentary measures.
  - For the purpose of subsidence prediction the width-depth ratio of the Blocks/Panels was computed and it was found to be varying from 0.32 to 0.75, hence all the Blocks/Panels are of subcritical width-depth ratio.
  - Maximum anticipated subsidence over the Blocks/Panels is ranging from 0 (over Block/Panel B-21) to 515mm (over Block/Panel B25). Thus in the overall working area, the maximum

subsidence is not likely to cause any major depression and hence change in the surface topography.

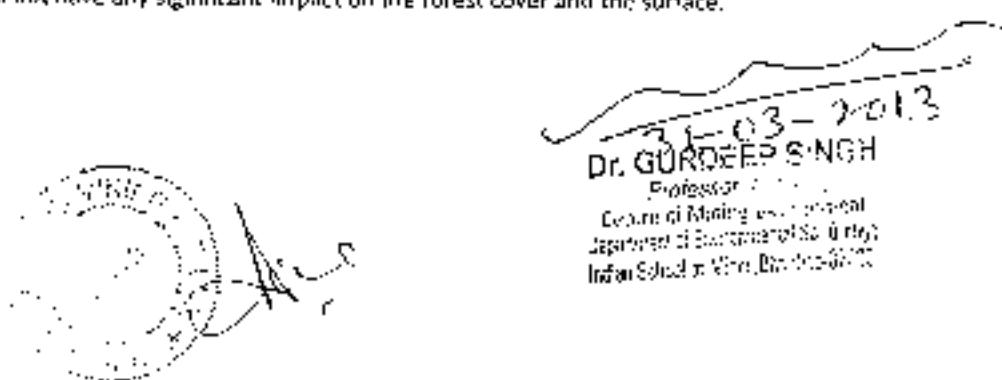
- The maximum prediction slope over the Blocks/Panels is ranging from 0 to 2.39 mm/m, which is not likely to cause any problem to any tree on the surface in the forest area.
- The maximum strain over the Blocks/Panels is anticipated to be 0 to 3.70 mm/m (compressive) and 0 to 3.88 mm/m (tensile) which are not likely to cause any problem in the forest area and there is hardly any likelihood of development of cracks on the surface. The maximum permissible tensile strain in the forest area is 20 mm/m and the anticipated strains are far less than this limit.
- The above movements on the surface due to underground mining have been predicted considering that the Deccan Trap rock mass over the Motur clays will behave like the other sedimentary measures but the Trap rock mass may tend to bridge the underground workings and may not permit the upward travel of disturbances and hence there is a possibility of gross reduction in the final subsidence on the surface. In that situation the impacts on the forest will be still less and far below the permissible limit.

#### Mitigation Measures

The anticipated subsidence movements and their impacts on the forest area at the mine indicate that there will be very little impacts on the surface as the maximum subsidence is hardly likely to exceed 500 mm and the maximum tensile strains are not likely to cause any crack on the surface and hence from the point of view of forest hardly any mitigative measure is required to be taken.

#### Conclusions

From the prediction of subsidence, slope and strains over the blocks/panels, it is evident that the subsidence movements are not likely to cause practically any impact on the forest area and surface. Therefore, it can be concluded that underground mining at Brahmapuri Coal Project even after depillaring will not have any significant impact on the forest cover and the surface.



# APPENDIX



In order to achieve 3 dimensional impact of the predicted subsidence, the surface for the mining area has been assumed as "X" and "Y" co-ordinates defining the horizontal plane and "Z" co-ordinate the depth of the surface. It may be noted that the "Z" co-ordinate has been exaggerated 125 times to have a better visual appreciation of the impact of the subsidence. It may be pointed out at this stage that the 3 dimensional projections should not be used to pin point the maximum subsidence area because all the points may not be visible on the map. However, these drawings may provide a fair idea about ground behaviour after mining.

There is hardly any subsidence value above 0.5m during the 30 years mining period that required a defined tabulation, therefore, no significant impact on the surface is stipulated. However, the following is enclosed to give a fairer picture :-

1. Topographical map showing surface profile.
2. Layout of underground Panels in Seam 1C.
3. Layout of underground Panels in Seam VA.
4. 3 Dimensional surface profile before mining.
5. 3 Dimensional surface profile after mining.
6. Surface topography alongwith mining blocks as approved under Mining Plan.
7. Isopachytes of Dorecan Traps within the Block Boundary.
8. Chart showing predicted/ subsidence values (maximum) over the blocks / panels alongwith the co-ordinates.



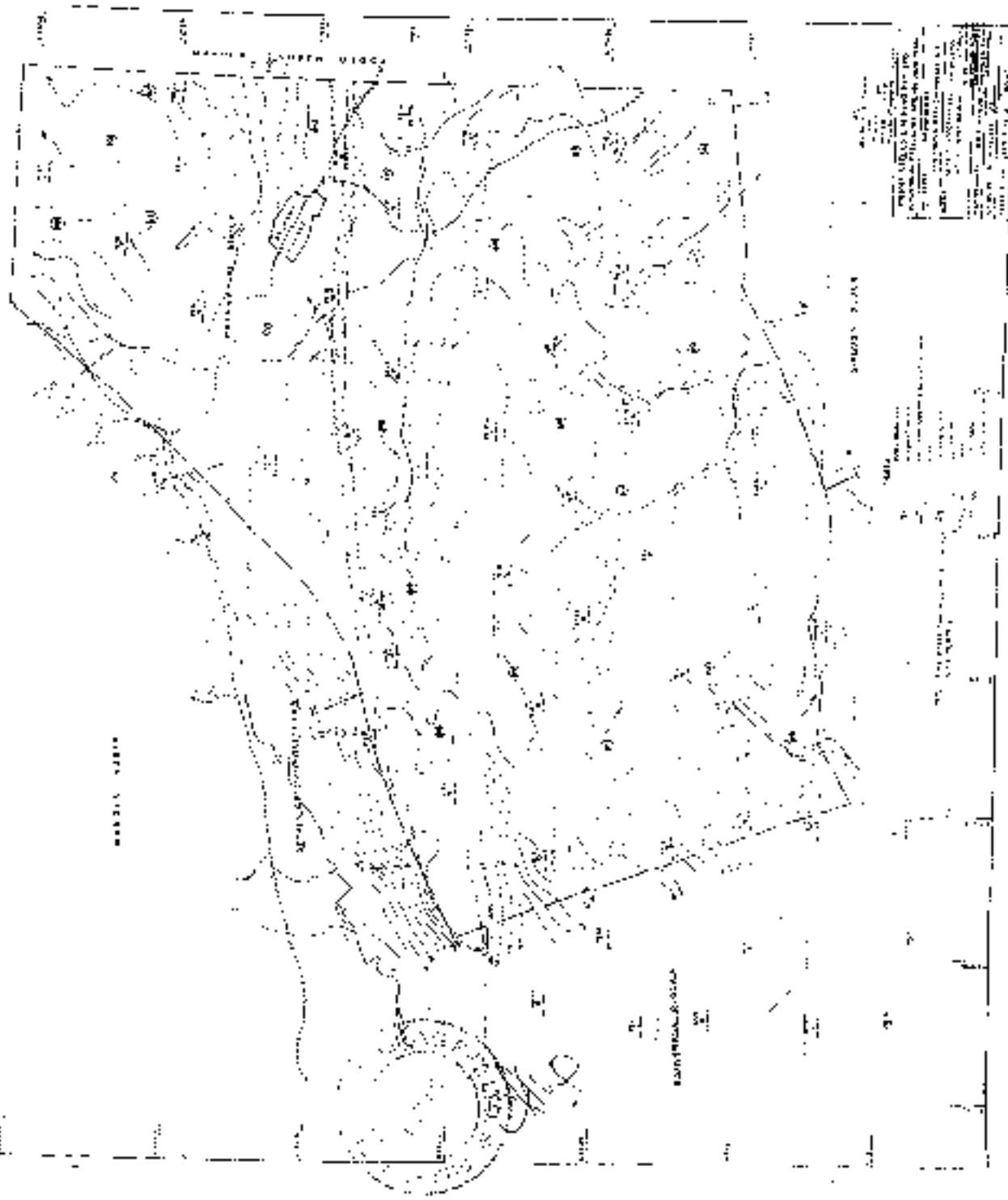
1. T.S. & R. ENGINEERS LTD.  
2. SURVEYORS & PLANNERS LTD.

Proposed, New Town, Dhaka, 1200

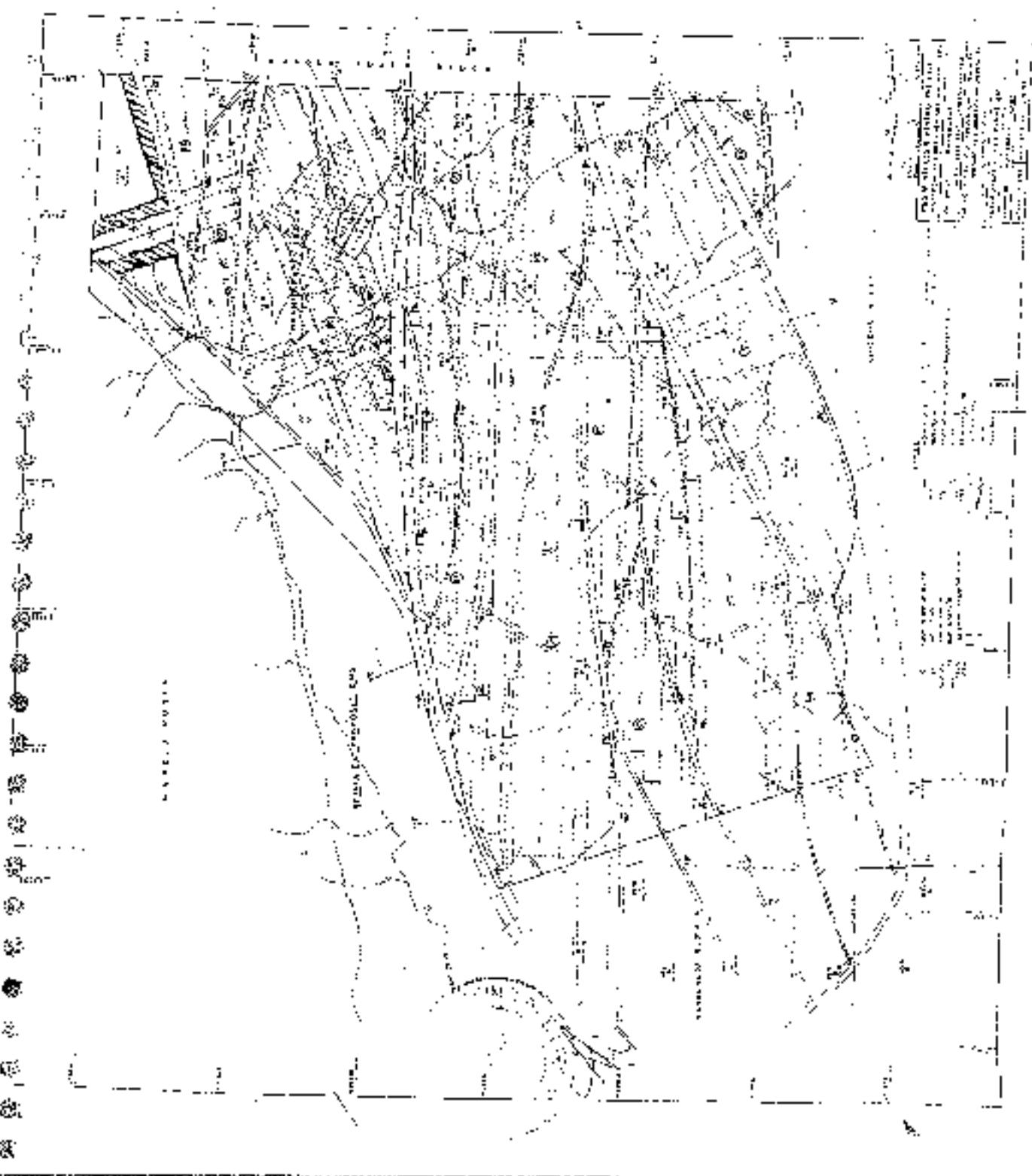
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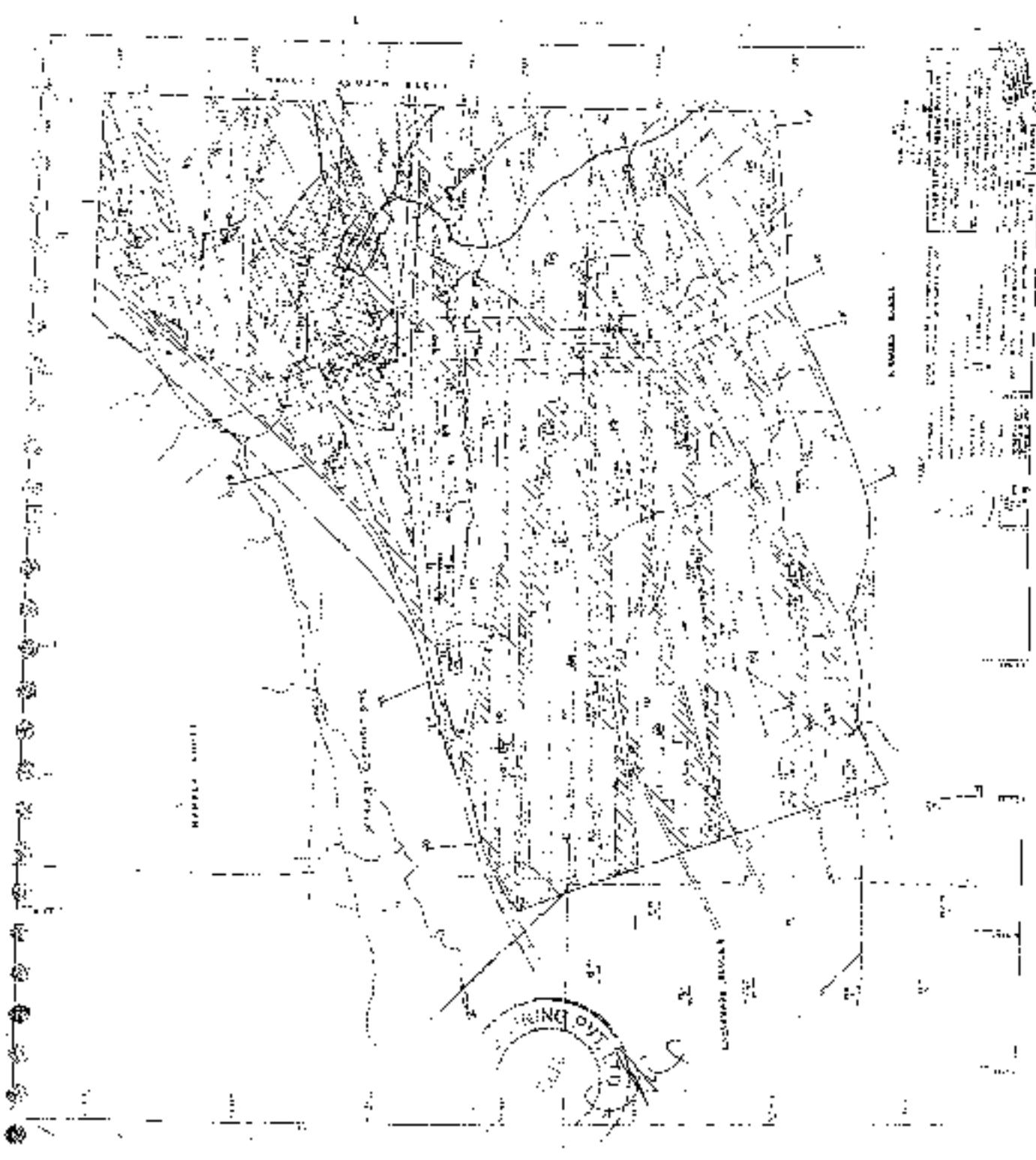
**Surface Topography alongwith Mining Blocks  
As approved under the Mining Plan**



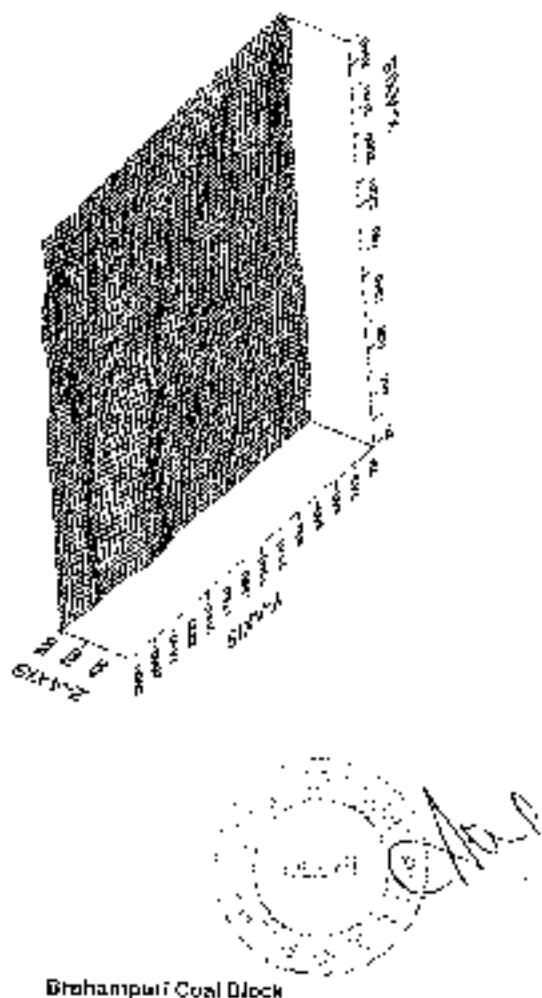
Layout of Underground Panels in Seam 1G  
as approved under the Mining Plan



**Layout of Underground Panels in Seam VA  
as approved under the Mining Plan**

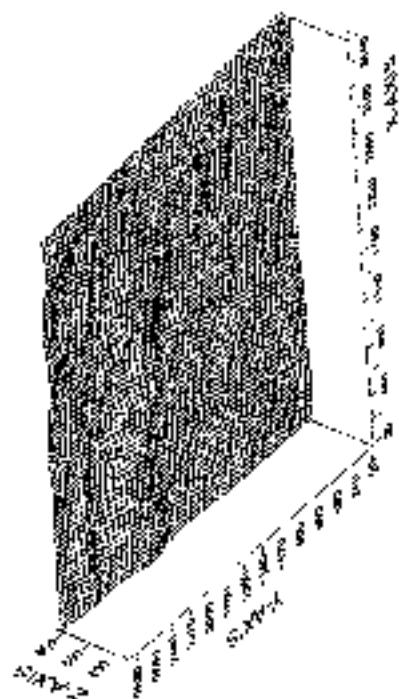


Surface Profile before Mining



Brahampuri Coal Block

Surface Profile after Mining



Brahmapuri Coal Block



Isopachytes of Daccah Trap in the Block Boundary

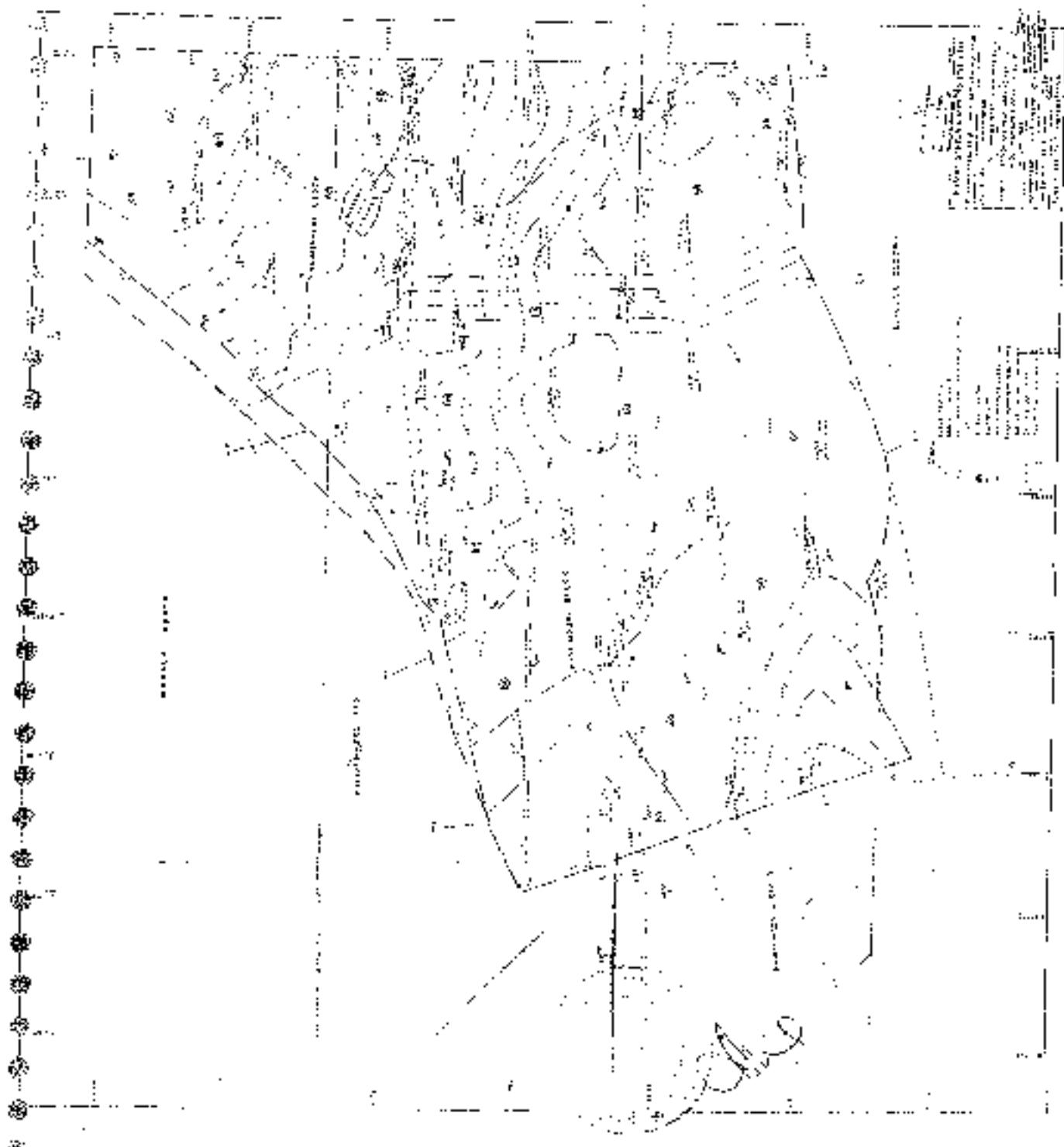


Table showing predicted subsidence values (maximum) over the blocks / panels

Sl No.	Block / Panel	Bore Hole No.	Co ordinates		Max Subsidence (mmr.)
			Latitude (m)	Departure (m)	
1	B-5	PF 40	20177.27	23286.20	0.175
2	B-5	PF 60	20425.27	24246.12	0.240
3	B-9	PE 77	19972.83	22950.98	0.435
4	B-10	PE 6	20165.58	22772.68	0.405
5	B-11	PE 37	20351.12	23185.47	0.000
6	B-12	PE 65	20448.78	22922.78	0.185
7	B-13	PE 67	20549.08	23563.84	0.105
8	B-15	PE 35	20729.94	23459.76	0.260
9	B-16	PE 59	20824.80	24249.18	0.115
10	B-17	PF 71	21032.38	24048.42	0.340
11	B-17	PE 72	21007.16	24309.69	0.095
12	B-18	PE 63	21031.37	23203.30	0.080
13	B-19	PF 58	21177.27	24187.11	0.060
14	B-21	PE 39	21341.66	23324.88	0.030
15	B-23	PF 61	21521.64	24147.69	0.125
16	B-23	PE 68	21789.56	23915.81	0.100
17	B-25	PF 32	21950.60	23693.91	0.515



PUSH STEELS & MINING P. LTD.  
251, Kundewalan Street  
Ajmeri Gate  
Delhi - 110006



216, Anisar Road, Danya Ganj, New Delhi - 110002  
Ph.: 23273639, 23272209  
Fax: 23271915, Mob.: 9999005443  
Email: audiovisual1988@gmail.com

Service Tax No.: ADVT/DLBY99/AV/2012  
Pan No. AAA#G417OB

BILL No. A/415/30348

DATE : 03.06.2012

₹ : 20135

PARTICULARS	DATES	SPACE	RATE	AMOUNT
				₹
Business Standard - Delhi	07	8x5	350	14100
News Bharat - Bhopal	07	5x5	190	950
			Less	2172
				19548
<i>paid Ch. 1534760/2/2</i>				
<i>W.B. 1/2</i>				
TDS is to be deducted @ 10% (without any surcharge or Education cess) as the firm is predominantly concern & comes under individual category as per the Income Tax Act.				
Design & C.D. Processing				
Total				
Service Tax				
₹ : Twenty Thousand One Hundred & Thirty Five Only.				
E. & O.E.	Accountant	For AUDIO VISUAL		

Digitized by srujanika@gmail.com

4,724,023,881.75 5,301,57,610.24 2,199,75

ORIENTAL BANK OF COMMERCE  
JELLINE MALL, PUNJABI BAGH  
Phone Nos: 011-27347707

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DATE: 04.06.2010

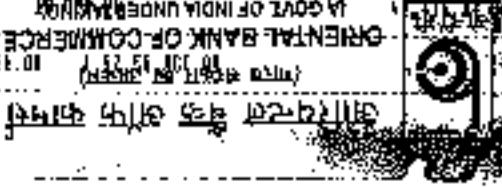
R/S. PUSHIP STEELS & MACHINES PRIVATE LIMITED

CUSTOMER ADDRESS:  
751 G T SHANMUKHAN STREET  
ASHOKA NAGAR JALANDHAR  
PUNJAB - 140006  
INDIA  
PHONE  
ADDRESS

ACCOUNT ADDRESS:  
751 G T SHANMUKHAN STREET  
ASHOKA NAGAR JALANDHAR  
PUNJAB - 140006  
INDIA

ACCT/CURRENT A/C AC NO 107613103097 C/W STATEMENT OF ACCOUNT FOR THE PERIOD OF : 31-10-2009 to 04-06-2010

RE	PARTICULARS	CHEQ. NO.	Dr. Amount (INR)	Credit Amount (INR)	BALANCE
-2001 I/M					0
-2009 CASH DEPOSIT					5,000.00 Cr
-2009 MUNIBA-RTGS 34-753, GROUND FLOOR, 2/UBZ(MHS)				70,10,000.00 Cr	55,000.00 Cr
-2009 TO C/R		66,88,400.00			4,36,400.00 Cr
-2009 DOCUMENTATION CHARGES		11,431.00			1,34,375.00 Cr
-2009 PROCESS FEE		72,357.00			1,22,641.00 Cr
-2009 VALUATION CHARGES		1,482.00			1,18,201.00 Cr
-2009 REC CHARGES		3,008.00			3,15,201.00 Cr
-2009 MUNIBA-RTGS 34-753, /U33NH09302821916			8,50,000.00		11,65,201.00 Cr
-2009 JMDL-3876084106-CH0661 Br TRRN		34,85,571.00			75,621.00 Cr
-2009 DOCUMENT RETENTION CHARGES		1,000.00			74,621.00 Cr
-2009 D/C 3000 CHARGES		75.00			74,545.00 Cr
-2009 SERVICE FAX		8.49			74,545.00 Cr
-2009 CHD BOOK CHARGES		200.00			74,345.00 Cr
-2009 SERVICE TAX		21.00			74,124.00 Cr
-2010 MARYLIP GUPTA & ASSOCIATES STOCK AUDIT ARA		3,774.00			74,348.00 Cr
-2010 CHD REC CHARGES		13.00			74,451.00 Cr
-2010 push		50,000.00			24,450.00 Cr
-2010 COURSES FOR HIGH ENDORSEMENT CERTIFICATE		6,000.00			18,450.00 Cr
-2010 MUNIBA-RTGS 34-PUSHIP STEELS AND MACHINERY			41,00,000.00		42,31,450.00 Cr
-2010 TO C/R		11,40,000.00			7,71,450.00 Cr
-2010 BY 6126401130012			23,05,000.00		45,76,450.00 Cr
-2010		6,49,204.00			39,26,254.00 Cr
-2010 TRRN TO CC NEW LOOK		38,00,000.00			89,254.00 Cr
-2010 PROCESS FILE 34 SANCTION DATE 30.04.2010		36,010.00			52,244.00 Cr
-2009 DOCUMENTATION CHARGE ON SANCTION DATE 30.04			1,57,10,500.00		1,57,10,500.00 Cr





Sunday, Nov 09, 2014

User :  
Mr. Pushpa steels  
& trading .

Account Number: 08761131003002

Statement Criteria :

From 01/11/2011 To 30/11/2011

Transactions Made - (Details till 09/11/2014 5:22 PM )

Sl No.	Description	Cheque No.	WithDrawals (Dr)	Deposits (Cr)	Balance Amount	Txn Date
1	TO CDR >		10,00,000.00	-	3,22,211.00	23/11/2011
2	MUMB-A-RTGS IW-SARJAY JAIN/JBINH11326017443 >		-	4,00,000.00	3,22,211.00	23/11/2011
3	TO CDR >		28,00,000.00	-	5,22,211.00	22/11/2011
4	TO CDR >		28,00,000.00	-	57,22,211.00	22/11/2011
5	08763031047100: Closure Proceeds >		-	11,41,040.00	55,22,211.00	22/11/2011
6	08763031047104: Closure Proceeds >		-	15,97,454.00	53,81,717.00	22/11/2011
7	08763031047067: Closure Proceeds >		-	15,97,455.00	37,83,717.00	22/11/2011
8	08763031047071: Closure Proceeds >		-	15,97,457.00	21,86,252.00	22/11/2011
9	08763031047063: Closure Proceeds >		-	15,97,454.00	5,88,805.00	22/11/2011
10	BOKOL:087630041101:BNLND EG AMND CIRGS >		10,85,573.00	-	10,06,642.00	22/11/2011
	<b>TOTAL &gt;</b>		<b>76,85,573.00</b>	<b>29,30,050.00</b>		

[Signature]





# ORIENTAL BANK OF COMMERCE

(A Sub-Segment of India United Banking)

We are your dedicated bankers

Sunday, Nov 09, 2014

User :  
 Mr. Pusdig steels  
 & mining .

Account Number: 08761131003002

Statement Criteria :

From: 01/10/2013 To: 31/10/2013

Transactions Made [Details till 09/11/2014 5:23 PM]

Sl No.	Description	Cheque No.	Withdrawals (Dr)	Deposits (Cr)	Balance Amount	Trans Date
1	MUMBAI-RTGS/NIRMAJ DAINUBHAIJI1329906726 >		-	6,00,000.00	6,67,215.49	26/10/2013
2	bypf >	509058	7,390.00	-	67,215.49	19/10/2013
3	IB SM TXNJD-tony 000007150807 >		17,659.00	-	74,005.49	12/10/2013
4	INLHD BG AMND CHRG'S >		11,05,947.00	-	02,264.49	11/10/2013
5	MUMBAI-RTGS/NIRMAJ DAIRUDIJI1328902609 >		-	11,00,000.00	11,26,111.49	11/10/2013
6	etthe >	509056	20,50,000	-	98,111.49	10/10/2013
7	IB SM TXNJD-tony 000007056108 >		7,715.00	-	1,18,511.49	07/10/2013
8	IB SM TXNJD-tony 000007056104 >		83,612.34	-	1,26,326.53	07/10/2013
9	SACHIN >	509055	54,000.00	-	2,05,948.93	05/10/2013
10	MUMBAI-RTGS/PUSHP ST HHS ANUMINENGB PV/S >		-	2,00,000.00	2,63,938.93	07/10/2013
11	VTDENDER >	509052	26,000.00	-	63,938.93	05/10/2013
12	SANTHEV >	509051	15,000.00	-	03,938.93	05/10/2013
	TOTAL :		13,21,723.44	19,03,100.00		

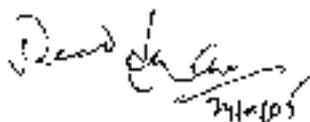
# PUSHP STEELS & MINING (P) LTD.

Head Office : 751, Ground Floor, Kundewalan Street, Ajmeri Gate, Delhi-110 060 (INDIA)  
Ph. +91-11-23235003, 23234900, 23234978, 23230617, Mobile +91 9810152011, Fax +91 11 23231569  
E-mail : stainlessmetal@yahoo.com

To,

Date : 23<sup>rd</sup> October, 2005

The Joint Secretary,  
Ministry of Coal,  
Shastri Bhawan,  
New Delhi-110001



Kind Attn. Shri K.S. Kropsha.

Subject : Application for allotment of Brahmpuri Coal Block, Panch-Kanhan the State of  
Madhya Pradesh for Captive use,

Sir,

In reference to your advertisement in Hindustan Times, we are pleased to submit our application for allocation of Brahmpuri Coal Block (Sr. No. 9), Panch-Kanhan the State of Madhya Pradesh. The Coal mined from the said Coal Block will be used in our Integrated Steel Plant where the steel making facility is being setup through Coal based DRI route in the State of Chhattisgarh. We have already been recommended an Iron Ore Prospecting License and Mining Lease in District Kanker, in the State of Chhattisgarh which has also been approved by Ministry of Mines, New Delhi for our captive consumption.

We are hereby submitting the application in the formats published by the Ministry of Coal alongwith all the required supporting informations as per the application format. In case any further information is required, we would be more than pleased to submit the same to your goodself.

You are requested to kindly consider our application and allocate us this block at an earliest.

Thanking you,

Yours faithfully,

For Pushp Steels & Mining Pvt. Ltd.

Atul Jain

(Director)

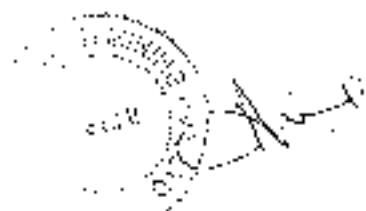


15/11/05  
24/10/05

Contd...Page 2

Enclosed : (All in five copies)

- (1) Pay order no. 294860 dt. 20.10.2005 for Rs 10,000.00 drawn on ICI Bank Ltd in favor of "PAO Ministry of Coal".
- (2) Application duly filled in the prescribed format.
- (3) Certificate of incorporation duly signed and stamped by the Director.
- (4) Copy of Board Resolution authorizing the applicant to apply for the Coal Block.
- (5) Certified copy of Memorandum and Article of Association of the company.
- (6) Certificate mentioning that the applicant company is poised to commence its production activities shortly.
- (7) Brief profile of the Promoter Director's.
- (8) Net worth statements of the Promoter Director's.
- (9) Detailed schedule of implementation of end use project in form of Bar-Chart.
- (10) Detailed schedule of implementation of proposed coal mining development project in form of Bar-Chart.
- (11) Scheme of disposal of unusable in mining of coal.
- (12) Audited Balance Sheets of the group companies of the Promoter Director's.
- (13) Project reports of the end use plant i.e. Sprage Iron Plant, Captive Power Plant in Chhattisgarh.





R. K. Singharia & Associates  
Chartered Accountant  
205, Main Road.  
Samta Colony, Raipur (CG)  
Dated: September 21, 2010.

To,  
Mr. Alul Jain/Mr. Sanjay Jain,  
Director,  
M/s Pushp Steel & Mining Ltd.  
Durg (CG)

Dear Sir,

**Mandate - Facilities and Advisory Services**

This has reference to our discussions with you from time to time, to get associated with your esteemed group, for loan syndication of proposed Integrated Steel Plant i.e. Iron Ore Mines, 350 TPD Sponge Iron plant, 3\*12 MT Induction furnace plant with CCM & LRF, 32 MW Captive Power Plant.

We are pleased to forward our proposal in this regard.

**Scope of Works :-**

- Preparation of Financial Project Report for Bank /FIs on the basis of information supplied by A/c Pushp Steel & Mining Ltd.
- Submission of term loan & working Capital Application forms before the Banks/ FIs for sanction of Required Bank Finance as per the Banking Norms.
- Followup will Banks / FIs for getting the loan syndication done for the above project & obtaining the detailed Sanction Letter.

**Professionals fees :-**

Our fees are as below:

Lump sum fees of Rs. 110.00 lacs (Rupees One crores and ten lacs only) plus service tax as applicable the said fees will be payable within 7 Days on grant of sanction letter from the Bank/ FIs for the above project

Above mentioned engagement terms are NETT of Service Tax / Surcharge / Cess. The same would be payable as per Government of India rules, by M/s Pushp Steel & Mining Ltd

The above fee is including out of pocket expenses made by our firm.

R. K. Singhania & Associates  
Chartered Accountant  
205, Main Road.  
Samta Colony, Raipur (CG)  
Dated: September 21, 2010.

A token/Advance amount of Rs. 5.00 lacs (Rs. Five lacs only) would be paid along with this mandate. This token/advance amount would be adjusted later on against balance dues. The same will be refunded back to you in case the fund Syndication work is not completed in stipulated time.

All the Banks charges like Processing fees, upfront fees, documentation fees, lead bank fees, escrow a/c charges, TEV charges and other charges etc. will be borne by M/s Pushp Steel & Mining Ltd.

All the technical project Appraisal cost will be borne by M/s Pushp Steel & Mining Ltd on actual basis.

Estimated time required for sanction of loan proposal is 3 months. For calculation of 3 months, time required by company for submission in papers is not included.

#### Limitations

It will be recognized that the Advisors will be rendering services to the best of its ability. This is reflected in the inherent manner in which the fees chargeable by Advisors are structured.

All reports / Information prepared during the course of this engagement will be based entirely on information furnished by M/s Pushp Steel & Mining Ltd. Accordingly, the Advisors will not be responsible for the veracity of the same.

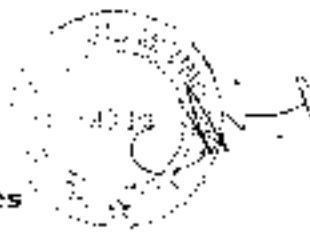
M/s Pushp Steel & Mining Ltd agrees to hold the Advisors, its employees, Associate Firms and Associates indemnified and harmless from and against any and all costs, expenses, charges, losses, claims, damages, liabilities, demands, actions, proceedings or investigations arising out of or in connection with this appointment.

Thanking you,

Yours faithfully,

**R.K. Singhania & Associates**  
Chartered Accountants

Kamlesh Kumar Singhania  
Partner



RAO  
PA CTR 3993N



# A.S.V. ASSOCIATES

ADVOCATES & SOLICITORS  
SUPREME COURT OF INDIA  
&  
HIGH COURT OF DELHI

Dr. Anurag Kumar Agarwal  
Advocate  
B.A. (Hons.), LL.B., M.A. (Hons.)  
Regd. No. 03949

Mrs. Sangeeta Agarwal  
Advocate  
B.A.L.L.B.  
Regd. No. 037895

Virag Kumar Agarwal  
Advocate  
B.A. (Hons.), LL.B.  
Regd. No. 039495

Office-Client-Residence: AC-149 & 154-D, Shalimar Bagh, Delhi - 110088  
Ph: 2748-5666/0276/0963 Email: [asvassociates@jkljgail.com](mailto:asvassociates@jkljgail.com), [asvassociates@rediffmail.com](mailto:asvassociates@rediffmail.com)

PAN No: AADPA8768L

## BILL

Bill No: 09/2013 - 14

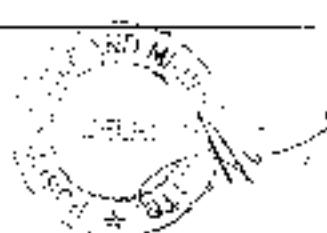
Dated: 25<sup>th</sup> May, 2013

To,

Pushp Steel and Mining Pvt. Ltd,  
751, Ground Floor, Kundewalan Street,  
Ajmeri Gate, Delhi - 110 006

Sub: Legal Consultancy/Conference

S. No.	Particulars	Charges(₹)
1.	PROFESSIONAL FEE:  On account towards Consultations, conferences, brief reading etc.	Rs. 1,00,000/-
2.	MISCELLANIOUS EXPENSES	Nil
	TOTAL	Rs. 1,00,000/-



  
SIGNATURE

Note: 1. Kindly issue the cheque in the name of "Anurag Kumar Agarwal" Or "A.S.V.  
ASSOCIATES". 2. Expenses should be reimbursed only in cash.

# NAMAN NAGRATH

M.P. - I.C.

Senior Advocate

Former Addl. Advocate General  
Madhya Pradesh

## RESIDENCE / OFFICE :

Name: Chaitanya  
Smt. Nisha Chaitanya  
Jabalpur (M.P.) - 492001  
Phone: +91 761 267 4391  
Fax: +91 761 261 1962  
Mobile: +91 98291 65750  
Email: [nagrath@outlook.com](mailto:nagrath@outlook.com)  
[nagrath@vsnl.net.in](mailto:nagrath@vsnl.net.in)

To:

Date : 30.09.2013

The Director,  
M/s Pushp Steel & Mining Ltd.  
Delhi

SUBJ : BILL

## MEMO

WRIT PETITION No. 16363/2013  
( Pushp Steel & Mining Pvt Ltd & Ors V/s Union Of India & Ors )

- I. Towards Court appearance and arguments in  
WRIT PETITION No. 16363/2013  
( Pushp Steel & Mining Ltd & Ors V/s  
Union Of India & Ors)  
On 30.09.2013 before  
M.P. High Court at Jabalpur

..... Rs. 1,25,000/-

TOTAL AMOUNT ..... Rs. 1,25,000/-

(RUPEES ONE LAKH TWENTY FIVE THOUSAND ONLY)

*W/Ref/18*

*[Signature]*  
( NAMAN NAGRATH )  
Sr. Advocate

PAN No. ABPPN0697Q



Mr. Arvind Singh  
Advocate  
Senior Advocate  
Union Civil Appellate Counsel  
Madhya Pradesh

Mr. Shantanu Chatterjee  
Advocate  
Adv. No. 1000  
Junction Rd., P. C. - 102  
Phone: +91 981 293 6391  
Fax: +91 981 293 7262  
Mobile: +91 982 165 5555  
Email: [chatterjee@advocates.com](mailto:chatterjee@advocates.com)

To,

Date 17.01.2014

The Director,  
M/s Pushp Steel & Mining Ltd.  
Delhi

SUB : BILL

MEMO

WRIT PETITION No. 16363/2013  
( Pushp Steel & Mining Pvt Ltd & Ors Vs Union Of India & Ors)

- i. Towards Court appearance and arguments in

WRIT PETITION No. 16363/2013

( Pushp Steel & Mining Ltd & Ors Vs  
Union Of India & Ors)

On 17.01.2014 before

MP High Court at Jabalpur

Amount Rs. 1,25,000/-

INR. AMOUNT Rs. 1,25,000/-

(LKR) 12500/-

ONE HUNDRED AND ELEVEN TWENTY FIVE THOUSAND ONLY

Banking A/c No. 08970

(NAMAN NAGRAH)  
Advocate



# A.S.V. ASSOCIATES

Advocates & Solicitors : Supreme Court of India & High Court of Delhi

Mr. Anup Singh Agarwal  
Advocate  
S.S. (Hons.), LL.M., P.U.P. (C.A.)  
Regn. No. D/2467/97

Phone: +91 11 2418 3040, 6275 9612  
Mobile: +91 9810036630

E-mail: anup@asvassociates.com  
asvassociates@hotmail.com  
Website: www.asvassociates.com

Office/Law Residence:  
A/C 149 & 154, B, Shalimar Bagh,  
Delhi - 110065

## ASSOCIATES

Mrs. Jyoti Choudhary, Advocate  
jyotis@asvassociates.com  
Regn. No. D/970/93  
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Mob : +91 9811081159

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Regn. No. D/17/96  
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+91 9350834709

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Mob : +91 9873170441

Rashneet Kapoor, Advocate  
rashneet@asvassociates.com  
Regn. No. D/294/92/13  
Mob : +91 9871037442

PAN No: AADPA8768L

## Bill

Bill No: 67/2013 – 14

Dated: 25/01/2014

To,

**Puship Steel and Mining Pvt Ltd,**  
751, Ground Floor, Kundewalan Street,  
Ameri Gate, Delhi – 110 066

Sub: Legal Consultancy/Conference

S No	Particulars	Charges (Rs.)
	PROFESSIONAL FEE:	'1,00,000/-
	On account payment towards Consultations, conferences, brief reading etc.	
	TOTAL	'1,00,000/-

Signature

Note: - 1. Kindly issue the cheque in the name of "A.S.V. ASSOCIATES", CA NO:0331202000064, IFSC - HDFC0000331, HDFC BANK, SHALIMAR BAGH, DELHI. 2. As per Finance Act, 1894 & Notification No. 30/12 dt. 20<sup>th</sup> June, 2012 issued thereunder, the 'Service Tax' is liable to be paid by the recipient of the service.



# Enviro Techno Consult

51, EAST LENDRA PARK, RAMDASPETH, NAGPUR 440 010, M.S. INDIA.  
Ph. (O) 2446012 Fax. 0712-2446012 E-mail : elem@vsnl.com

BILL NO. : FTC/124/2009

DATE : 09/11/2009

**TO**

M/S PUSHP STEELS & MINING (P) LTD  
FSI, GROUND FLOOR, KUNDEWALAN  
AJMERI GATE, DELHI

ACCRUE DUE NO. \_\_\_\_\_ DATE \_\_\_\_\_

PARTICULARS	QUANTITY	RATE	AMOUNT RS. PS.
CHARGES TOWARDS SUBMISSION OF DOCUMENTS FOR PUBLIC HEARING TO MPPCB (BHOPAL/TADALPUR) IN RESPECT OF BRAHAMPURI COAL MINING PROJECT 25% OF RS. 4.25 LAKHS	--	--	1,06,250 00
SERVICE TAX @ 10% ON RS. 1,06,250/-	--	--	10,625 00
EDUCATION CESS @ 2%	--	--	212 50
HIGHER EDUCATION CESS @ 1%	--	--	106 50
GRUPPS NINE HUNDRED NINETY THREE ONLY	TOTAL	--	1,17,194 00

E&OE SUBJECT TO NAGPUR JURISDICTION  
PAN CUM SERVICE TAX NO. AAA FE 2909 E ST 001

FOR ENVIRO TECHNO CONSULT

PARTNER

CDY 11/11/09  
014



# Enviro Techno Consult

51, EAST ENDRA PARK, RAMDASPETH, NAGPUR - 440 010, (M.S. INDIA)  
Ph.: (0) 2446012 Fax: 0712-2446012 E-mail: etcnk@yahoo.co.in

BILL NO : BTC/005/2009  
DATE 13.04.2009

TO

M/S PUSHP STEELS & MINING (P) LTD.  
751, GROUND FLOOR, KUNDEWALAN  
AJMERI GATE, DELHI

YOUR ORDER NO. \_\_\_\_\_ DATE \_\_\_\_\_

PARTICULARS	QUANTITY	RATE	AMOUNT
		RS	PS
MOBILISATION ADVANCE AGAINST BRAJAMPUR COAL MINING PROJECT 25% OF RS. 4.25 LAKHS	--	-/-	1,06,250 00
SERVICE TAX @ 10% ON RS. 1,06,250/-	--	--	10,625 00
EDUCATION CESS @ 2%	--	--	212 50
HIGHER EDUCATION CESS @ 1%	--	--	106 50
(RUPLES NINE HUNDRED NINETY THREE ONLY)	TOTAL	-	1,17,194 00

E & O.E. SUBJECT TO NAGPUR JURISDICTION  
PAN CUM SERVICE TAX NO. AAA PE 2909 B ST 001

FOR ENVIRO TECHNO CONSULT

PARTNER

Rs 112194

L.N. 12071

Bal. 105123--

Recognised as In-house R&D unit by DSIIR, Govt. of India, New Delhi REF. NO. TLMV-RDM/T/2007 dated July 11, 2007

✓ Surveyor and Geodetic  
✓ Electrical Survey  
✓ Geodesy  
✓ Project Management  
✓ Consultancy  
✓ Geophysical Drilling

SOHAN ASSOCIATES  
Shop No. 4, 4th Floor, N.S.Y. House, Ayan Square  
Wardha Road, Nagpur - Ph. 0712 6964474  
Mobile No. +919890480828

### I. INVOICE III

To  
**PUSHP STEELS & MINING PVT.LTD**  
751, Kudewalan Street, Ajmeri Gate,  
New Delhi, 110006

Invoice No: NGPSNCT/08-09

DATE: 17.01.2009

Sr. No.	Description	Qty	Rate		Amount	
			Rs.	Ps	Rs.	Ps
1.	Transfer and Fixation of Base Line and Bench mark km nearest to Rawainwari mines (8km x 25000) sq km	8	2500	00	20000	00
2.	Carrying out Topographical Survey for Covering all the details of site in grid i.e. bore holes drilled, electric poles, structures, big trees, rivers, nullas, roads, etc.. Taking levels at necessary interval and preparing the contour plan. Total Station will carry out work.	3.6	50000	00	180000	00
3.	Construction of TBM base line pillars 2 nos. at the site	2	2000	00	4000	00
4.	Construction, Transportation and Fixation of boundary pillar about 20 nos.	120	350	00	42000	00
<b>TOTAL</b>					<b>246,000</b>	<b>00</b>

(1) The contract value as mobilization advance. On dated 6/9/2008 Rs. 100000/-  
(2) The contract value work in progress. On dated 6/11/2008  
Rs. 75000/-

Balance Amount	71,000	00
----------------	--------	----

(Rupees: Seventy one thousand only)

Pan no: A0MPS1536J

For SOHAM ASSOCIATES,

*[Signature]*  
Proprietor,

Please make your payments by D.D favoring "SOHAM ASSOCIATES" Payable at Nagpur.



Shop No.7, Ground Floor, N-4 V  
Favor's Ajmeri Square, Waranan Road,  
NAGPUR - 441004

INVOICE

To  
PUSHIP STEELS & MINING PVT LTD  
751,Kudewalan Street, Ajmeri Gate,  
New Delhi,110006

Invoice No: NGP/SC/1009-10-013  
DATE: 24.09.2009

Sr. No.	Description	Qty	Rate	Amount	
			Rs.	Ps	Rs.
1.1.	Cadastral map plotting	05	350	00	1750 00
1.2.	Cadastral map plotting on Tracing paper	01	400	00	400 00
3.	Topographical plan print	02	250	00	500 00
4.	Topographical plan Tracing paper	01	300	00	300 00
5.	Forest plan (1:35000)	08	350	00	2800 00
6.	Forest plan (1:50000)	08	350	00	2800 00
Sub-Total				8550	00

(Rupees: Eight thousand five hundred fifty only)

For SOHAM CAD TECHNOLOGY

Proprietor:

Please make your payments by D.D favoring "SOHAM CAD TECHNOLOGY"  
Payable at Nagpur.

PAN. NO: → A2-AFS/1639L By Rs. 750/-  
Date: 25/9/2009