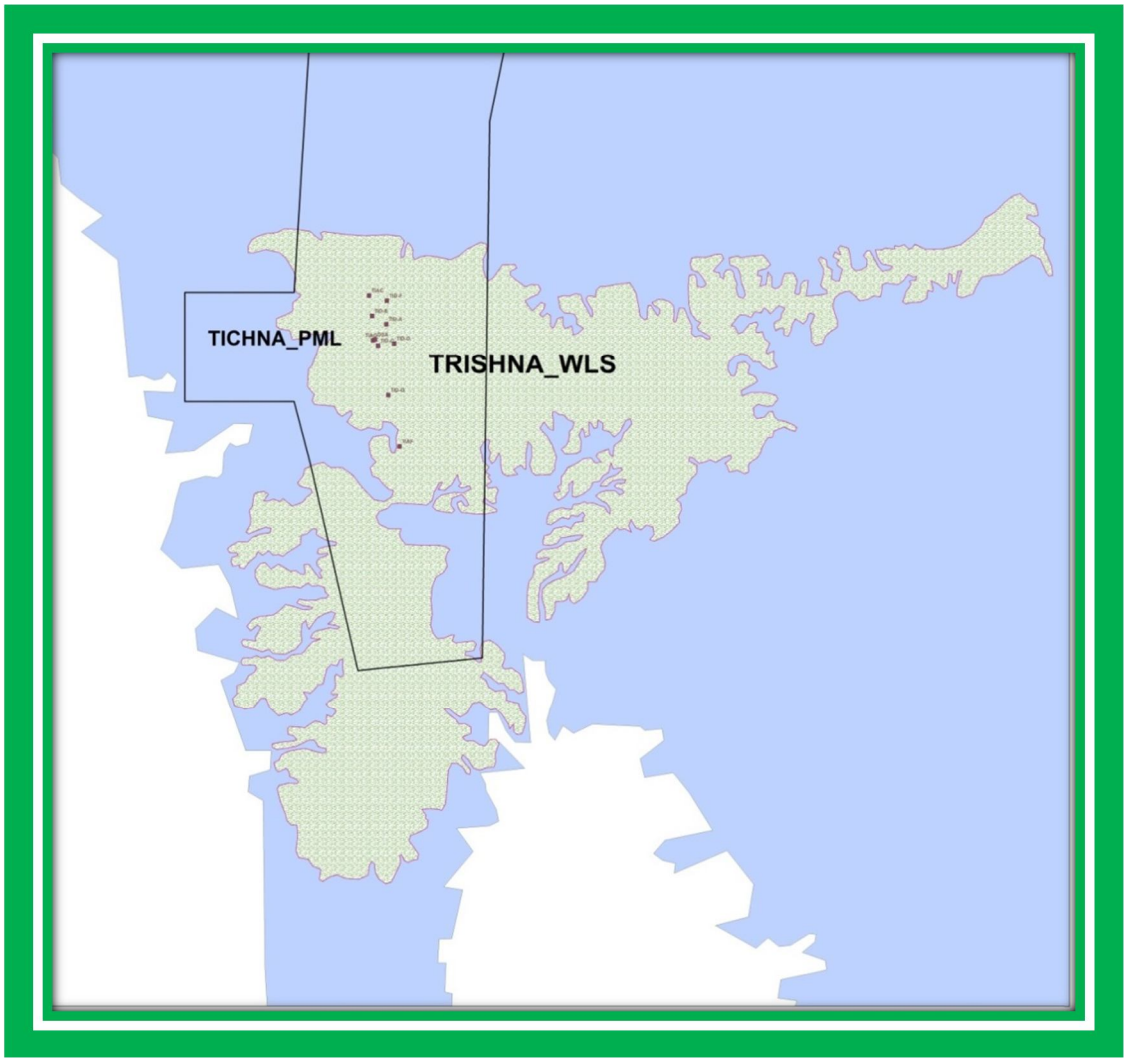
Annexure-C

PROJECT REPORT ON PROPOSED EXPLORATION & DEVELOPMENT ACTIVITIES IN TICHNA PML BLOCK TRIPURA

(To Seek Wildlife/Forest/Environmental Clearance from Concerned Authorities)



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C O N T E N TS

A N N E X U R E S

1. INTRODUCTION

The state of Tripura covers an area of around 10500 km^2 within the western flank of Assam-Arakan Basin. The Tripura Sub-Basin comprises of a huge Tertiary sequence of post Cretaceous to Pleistocene age sediments. The Sub-Basin is characterized by severe folding, faulting and thrusting. The area falls in a very complex geological set up, influenced by the two major orogenic belts. The east-west trending Himalayan orogenic belt is situated in the north and the north-south trending Indo-Burmese orogenic belt is in the east. It is dominated by a series of sub-parallel elongated doubly plunging anticlines trending mainly in N-S direction which are separated by wide and flat synclines.

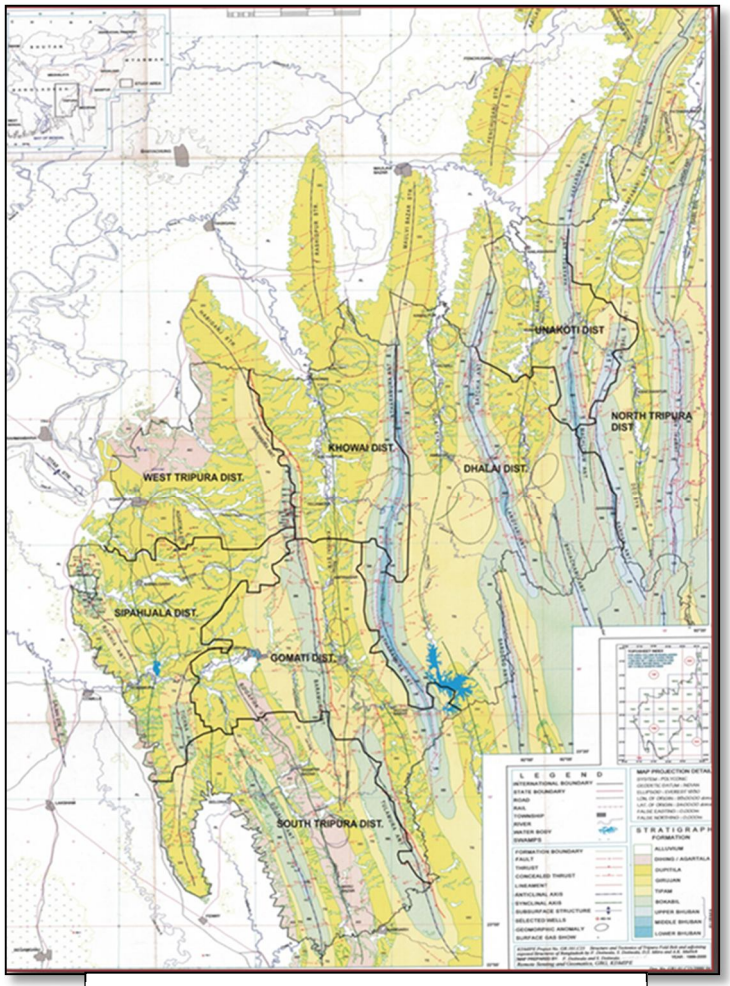

Fig: 1 Geological map of Tripura

Tichna Field is situated in the western most part of Tripura state. The structure is surrounded by gas bearing Rokhia structure in NW, Gojalia in SE and Baramura in the E & NE and to the west borders Bangladesh. The surface topography of Tichna Gas Field is manifested in the form of gently raising ridges and shallow valleys covered with vegetation.

This area is well connected with good road network from Agartala/Sonamura by metalled road. The area lies in Tichna Petroleum mining lease which was granted by Govt. of Tripura vide O/O No.F.1-2(53)/GEO/DI/2006/1945-46 dated 04.02.2009 for a period of 20 years with effect from 07.02.2006 for an area of 195.41sq km and falls in Trishna WLS.

The objective of the report is to provide detailed information about the project of **Proposed *Exploration and Development Activities in Tichna PML Block*** to seek Wildlife/Forest/Environmental Clearance from the concerned authorities.

2. GEOLOGY OF THE AREA

Tripura is surrounded by a string of proven gas fields towards west and north in Bangladesh. The tectono sedimentary environment and petroleum system is having similar characteristics. Compared to the basin evolution, characteristics of the petroleum systems of Bangladesh reflect the accommodation space created by the collision of the Indian plate with Eurasia on the north and the Burma platelet on the northeast. The occurrence of more than 25 tcf of natural gas in place makes it clear that source depo-centres are highly active in the region. Subsurface natural gas occur in middle and lower Miocene sands of the Bhuban and Bokabil formations in reservoirs as deep as 4450 m. The primary reservoirs for the known accumulations in Bangladesh are in the upper Miocene–Pliocene Bokabil sandstones, deposited in fluvial-deltaic to estuarine environments. The main reservoir sands are commonly tens of meters thick and represent fluvial/distributary channel and transgressive barrier bar facies; however, abundant thin-bedded sand/shale sequences are deposited in tidal/deltaic environments. Abundant channelling in tidal to lower deltaic sequences has resulted in reservoir heterogeneity and compartmentalization. Additional reservoirs of increasing importance are the middle Miocene Bhuban sandstones, deposited in a more marine, delta-front environment than the sands of the overlying Bokabil formation. The structural trends have similar pattern in Bangladesh, West and East Tripura except intensity of deformation.

In general the thick Shales of Lower Bhuban, Barail and Disang are considered as excellent source rock. While the Sandstone/ Siltstone of Bokabils, Upper Bhuban and Middle Bhuban are the proved reservoirs. The thick Shales of Bokabil Formation & intra formational shale of Upper Bhuban & Middle Bhuban Formations are the effective cap rock. The trapping mechanisms are of both structural as well as combination in nature. Apart from establishing gas reserves for commercial exploitation, drilling of wells have yielded valuable data on stratigraphy and structural framework of Tripura Fold Belt and have helped in understanding the hydrocarbon habitat and its distribution both in time and space. Generalized Stratigraphy of Tripura-Cachar Fold Belt Area is as shown below:

Age	**Group**	**Formation/ Member**	**Gross lithology**
Mio-	Tipam	Gobindpur	Variegated soft and sticky clays often silty with sandstone

Pliocene		Jaipur	Mainly medium to coarse grained, friable sandstone with clay, claystone and shale
Miocene	Surma	Bokabil	Dominantly argillaceous sequence comprising clay stone, silty shale with thin irregular bands of medium grained sandstone
		Upper Bhuban	Mainly arenaceous sequence with alternating fine to medium grained sandstone and subordinate silty shale.
		Middle Bhuban	Dominantly argillaceous sequence comprising claystone and silty shale with thin irregular bands of fine sandstone.
		Lower Bhuban	Mainly arenaceous sequence comprising fine grained sandstone with thin alteration of silty shale.
Oligocene to Late Eocene	Barail	Renji	Equal preponderance of sandstone and silty shale alternating irregularly in thinly bedded sequence forming several sedimentary structures.
		Jenum	Mainly silty shale with thin irregular bands of fine sandstone and siltstone.
		Laisong	Alterations of very fine grained sandstone, silt stone and silty shale occurring as irregular beds.
Eocene	Disang	Disang	Dark grey with thin beds of sandstone

Tichna Structure

Tichna structure is one of the westernmost exposed anticlinal structures in Southern part of Tripura. Tichna structure is a north-south trending, doubly plunging anticline, with slightly steeper western limb compared to the eastern limb. The structure plunges to the north in the Sundalbari area and to the south it extends and plunges to Rajnagar area. Tichna structure is approximately 55 km long and 10 km wide, showing slight western convexity. It is bounded to the east and west by N-S trending longitudinal reverse faults.

Bokabil Formation is exposed at the core of the Tichna anticline while Tipam and younger sediments are exposed in the flanks and the plunge part. Neogene sediments of the order of 1150m are exposed in the Tichna anticline. The structure is surrounded by number of gas bearing structures namely; Baramura to the east, Gojalia to the south east and Rokhia to the northwest.

This structure is proved to be a largest commercial gas producer. The well TI-5 and TI-6 in this structure produced gas on production testing from Bokabil and Middle Bhuban reservoir respectively. Drilling of wells in Tichna have established 4 gas pays, of which 2 are in

Bokabil and 2 are in Middle Bhuban Formation of Surma Group, within the normal pressure regime leading to accretion of 4762.4 MMm^3 (4.7 BCM) GIIP.

3. EXPLORATION AND EXPLOITATION STATUS

ONGC started systematic geological mapping in Tripura in 1962 along with shallow drilling at selected locations. For better understanding and delineation of structures, ONGC initiated conventional 2D seismic surveys in Western Tripura in 1977. Later, in 2004-05 acquisition of 3D seismic data was started.

In order to understand and ascertain the hydrocarbon potentials of Tripura Fold Belt, ONGC started drilling operation in Tripura in 1972 over *Baramura Structure*, where presence of gaseous hydrocarbons in commercial quantity was proved. Drilling of wells have established occurrence of commercial gaseous hydrocarbon from the Surma Group of sediments in this petroleum province. Exploratory activities in the area have led to identification of 24 exposed and concealed structures. Out of identified 24 structures, 18 structures are probed by exploratory drilling and 11 structures are found to be gas bearing. Commercial hydrocarbon encountered in the stratigraphic formations is mainly from the sandstone reservoirs of Upper Bhuban, Middle Bhuban and also from Bokabil Formation in Konaban and Tichna structures.

Over the years ONGC has discovered 11 fields namely Agartala-Dome, Baramura, Konaban, Manikyanagar, Tichna, Gojalia, Sonamura, Kunjaban, Sundulbari, Tulamura and Khubal with proven reserves of commercial gas and 7 fields are under exploitation. As on 01.04.2015, a total of 197 wells have been drilled with a good success ratio of 1:2.

Tichna field

Exploration activities in Tripura started in the year 1962 and exploratory drilling in Tichna structure started in 1987. Commercial discovery of gas was made in this structure in the year 2000, in the well TI#5. The well TI# 7 and TI# 8 was drilled in 2004 and 2006 respectively and after that no exploration and exploitation work could be carried out.

Till date, nine exploratory wells have been drilled in Tichna Anticline out of which two wells TI# 5 & TI# 6 are gas bearing. The wells are drilled from a depth of 851 to 3272m to probe the hydrocarbon potential of Bokabil, Upper Bhuban, and Middle Bhuban Formation.

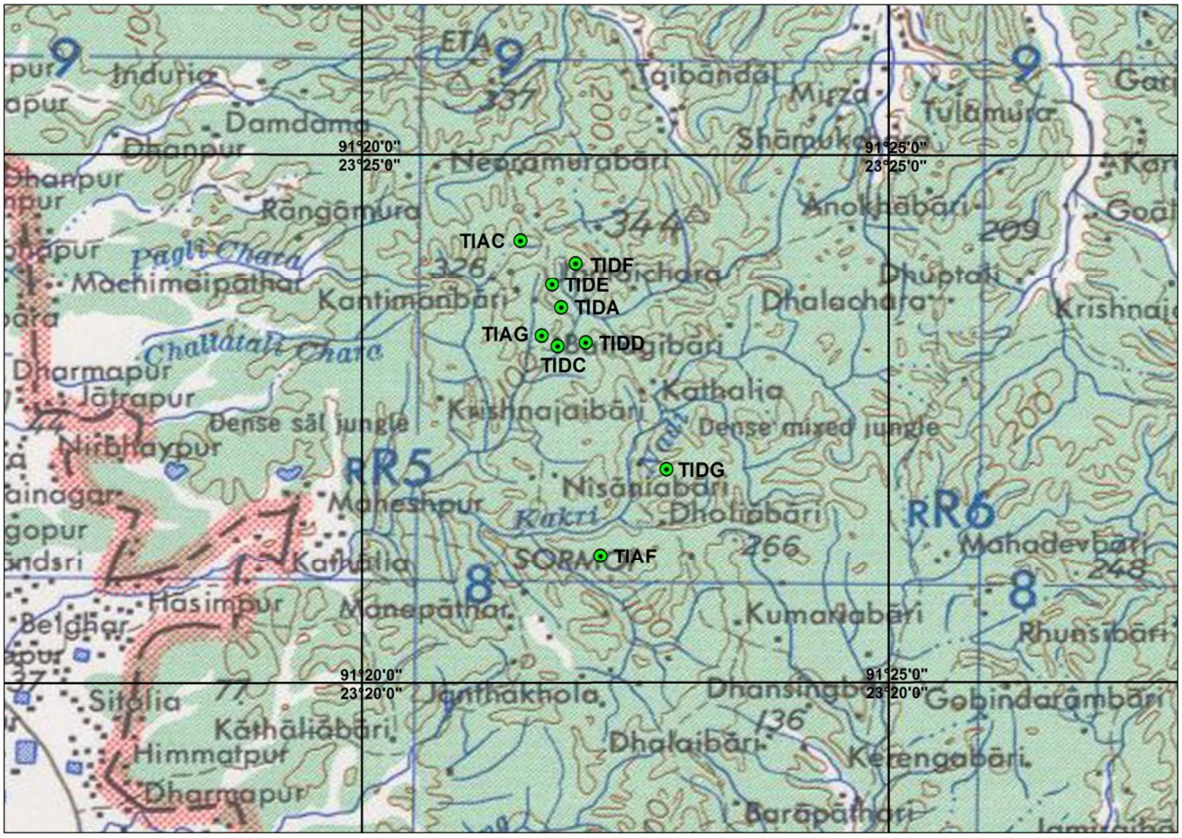

Fig: 2 Location Map

Well TI#1 was drilled with target depth of 4500m to explore the HC potential of Bhuban and Renji Formation but it was terminated at 3272m due to drilling complications (stuck-up & fishing). The HC potential of Lower Bhuban Formation and below is yet to assess in Tichna structure.

The exploratory drilling has given lead of presence of gas while drilling Middle Bhuban Formation in the well TI#1 and minor gas of around 5000 m3/d was established from depth of 2891-2883, 2881-2866m. The well TI#3 was drilled to 2269m and was abandoned because of blowout at this depth. Commercial discovery was made in the well TI#5 at shallow depth which was drilled upto a depth of 851m. In this

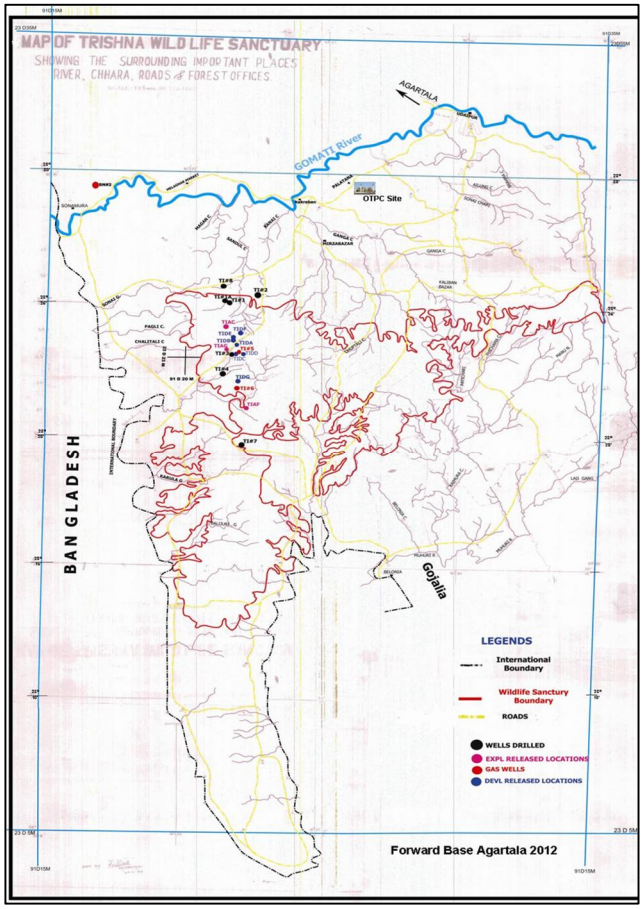

Fig: 3 Map of Trishna WLS

well commercial gas was established from Bokabil Formation with production of gas in the range of 20,000 m3/d from a depth of 694-698m (TP-10). Another pay sand was established in this Bokabil Formation at a depth of 517-514m which produced gas @ 16,000 m3/d. After that commercial gas was again discovered in the well TI#6 from the Middle Bhuban Formation in TP-50 and TP-40 sands. TP -50 produced gas @ 80,649 m3/day from 2026-2022m and TP-40 produced gas @ 1,01,175 m3/day from a depth of 1701.5-1698, 1678-1675, 1655-1650m. Based on reserve estimation, around 4.76 BCM GIIP has been established in Tichna Structure and an additional amount of 2.0 BCM of GIIP is expected to be accreted from this structure through planned exploratory drilling.

Tichna PML was granted by Govt. of Tripura vide O/O No.F.1-2(53)/GEO/DI/2006/1945-46 dated 04.02.2009 for a period of 20 years with effect from 07.02.2006 for an area of 195.41 sq.km.

At present 4 released exploratory 'B' category locations, namely; TIAC, TIAF, TIAG & TL are available in the area and also 6 released development locations namely; TIDA, TIDC, TIDD, TIDE, TIDF and TIDG. Coordinates details of the locations are given at **Annexure-I**.

All these locations are falling in the notified area of Trishna Wild Life sanctuary. All the locations are located close to the existing road between Taibandal in the north and Kathalia in the west passing through Trishna WLS.

Almost the entire structure falls within the Trishna WLS and due to that exploration and exploitation of hydrocarbon could not be carried out. Due to non-availability of Forest & Environmental clearance, the hydrocarbon potential of Tichna area remained locked. In view of the setup of OTPC (ONGC Tripura Power Corporation), the need of gas from this structure is very crucial for supply of gas to power plant.

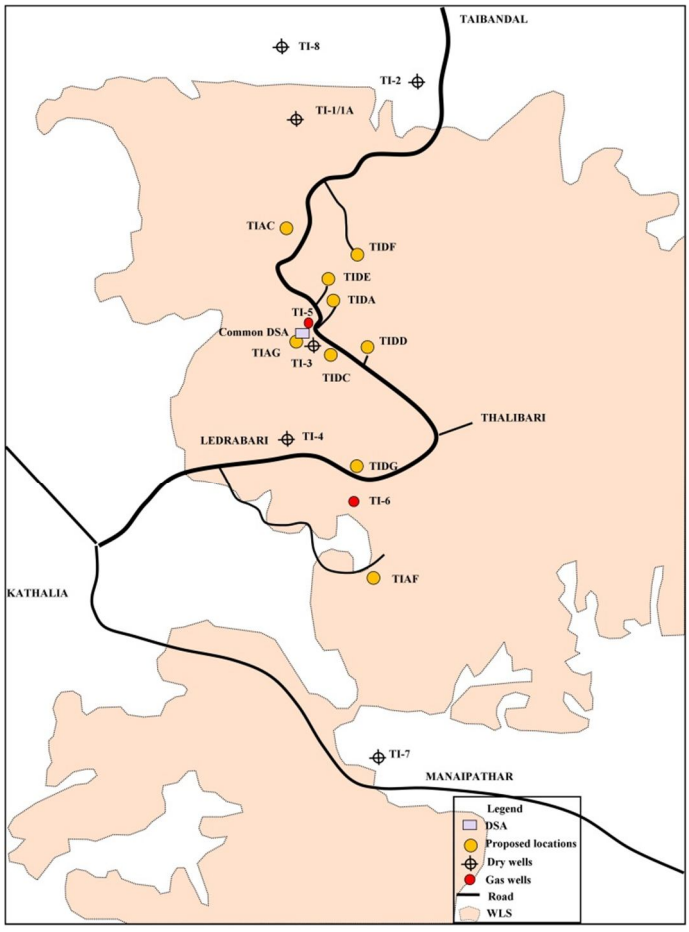

Fig: 4 PROPOSED LOCATION IN TRISHNA WLS

The process of diversion of 1.32 hectares of forest land for location TIAC within the WLS started way back in February 2000. In May 2005, the State Board for wildlife approved for diversion of 15Ha of Tichna Wild Life Sanctuary land for 10 exploration activities of ONGC. As per advice of MoE&F, ONGC submitted proposals of all the ten locations in the new format on 10.08.2007 but clearance is awaited till date.

4. GAS BASED PROJECTS IN TRIPURA

TSECL (Tripura State Electricity Corporation Limited)

TSECL has installed capacity of 110 MW at Baramura Gas Thermal Plant and Rokhia Gas Thermal Plant and Gumti Hydroelectric. 21 MW capacity augmentations at Baramura Gas Thermal Plant are on-going. It has plans to set up 105 MW Combined Cycle Project at Chakmaghat. (Source: http://www.tsecl.nic.in/genera.htm)

OTPC (ONGC Tripura Power Company), Palatana: 726.6 MW Combined Cycle Power Plant

ONCC Tripura Power Company Ltd is sponsored by Oil and Natural Gas Corporation (ONGC), Infrastructure Leasing and Financial Services Limited (lL&FS) and Government of Tripura (GoT) for implementation of 726.6 MW CCG thermal power project at Palatana in Tripura to supply power to the power deficit areas of North Eastern states of the country. Hon'ble President of India Shri Pranab Mukherjee inaugurated the first unit of state-owned Oil and Natural Gas Corp's (ONGC) mega power project built at a cost of Rs 3,804 crore. Hon'ble Prime Minister Shri Narendra Modi dedicated the Unit II of the ONGC Tripura Power Company at Palatana, Tripura, to the Nation on December 1, 2014. The 726.6 MW gas-based power plant of ONGC Tripura Power Company is one of the biggest Clean Development Mechanism (CDM) projects of the world.

North Eastern Electric Power Corporation Limited (NEEPCO), Agartala: 84 MW Project

This project is located in the West Tripura District of the state of Tripura near the capital town of Agartala .The project runs on an Open Cycle Mode and consists of 4 Gas Turbines of 21 MW each operating on natural gas. The Project was completed in 1997-98 and it is presently in commercial operation. (source: http:/,/www.neepco./Jov.in/neepco/#)

North Eastern Electric Power Corporation Limited (NEEPCO), Monarchak

NEEPCO also has an upcoming 101 MW gas based combined cycle power project at Monarchak, West Tripura district and Gas supply started w.e.f. 04.02.2015 for pre-commissioning activities.

Tripura Natural Gas Company Ltd (TNGCL)

TNGCL is supplying piped natural gas to the domestic, commercial & industrial consumers in and around Agartala and introducing & implementing CNG as a safe, economical alternative to gasoline /LPG/ other conventional fuel in the transport sector. Its main objectives are:

- Establish natural gas as a eco-friendly, economical and safe alternative fuel.
- Reduce & control rising pollution due to vehicular emission.
- Provide safe, healthy and less polluting environment.

First CNG Station in the Eastern Region of the Country has been commissioned in 2006 and in Operation at Arundhuti Nagar, Agartala, and Tripura. Presently 4 CNG station are operational 3 at Agartala and 1 at Udaipur. One more is set up at Khayerpur, Agartala and would be operational soon. (Source: http://www.tngcl.com)

Chambal Fertilizers & Chemicals Ltd at Khubal: East Tripura

ONGC will set up fertiliser plant for early monetizing of 'Khubal' Gas. MoU was signed with Chambal Fertilizers & Chemicals Ltd and Tripura government on April 9, 2013. Estimated cost of the project is Rs. 5,000 crore and expected to be commissioned by September 2017.Capacity of the urea plant: 1.3 MMTPA, which would utilise 2.4 MMSCMD of gas.

5. LOW CARBON STRATEGY

India has made a commitment to reduce its carbon emission per unit GDP by 20-25% by 2020 through policy interventions. As per Interim Report on Low Carbon Strategies for Inclusive Growth published in May' 2011 by Planning Commission, India is highly vulnerable to climate change and has a strong interest in having a fair and equitable global agreement for minimizing the risk of climate change. India has already announced that it will reduce the emission intensity by 20-25% of its GDP over the 2005 level by the year 2020 through pursuits of proactive policies. India's 12th Five Year Plan to be launched on 1st April 2012 will have low carbon inclusive growth as one of its key pillars.

6. FOREST DIVERSION & ENVIRONMENTAL CLEARANCE

The process of diversion of 1.32 hectares of forest land for drilling of one exploratory location TIAC within the Trishna WLS started way back in February 2000. The proposal for diversion of this forest land was not accepted to by the Ministry of Environment and Forests, (MoEF), Govt. of India as the area was notified as "Trishna Wild Life Sanctuary".

Environmental Impact Assessment for Tichna field was carried out through National Environmental Engineering Research Institute (NEERI) and copies of EIA report was submitted to the PCCF, Chief Wildlife Warden, Chairman, Tripura State Pollution Control Board Govt. of Tripura in July 2004 and also copies to MoEF. ONGC in September 2004 submitted proposal for wildlife clearance of 15.0 hectares of land.

In May 2005, the State Board for wildlife approved for diversion of 15 Ha of Trichna Wild Life Sanctuary land for 10 exploration activities of ONGC. As per advice of MoE&F, ONGC resubmitted proposal for all ten locations in the new format on 10.08.2007, however clearance is awaited till date.

ONGC vide letter dated 26.06.2007 had applied for environmental clearance for exploratory drilling in Trishna reserve forest but still remain pending. MoEF, GOI vide F. No. J-11011/637/2007-IA II (I) dated 19.10.2007 informed ONGC that all the wells are falling in Wild life sanctuary and advised to obtain permission from the National Board of Wildlife before obtaining Environmental clearance (**Annexure-II**).

7. BENEFIT OF HYDROCARBON EXPLORATION & EXPLOITATION IN TICHNA FIELD

Vast hydrocarbon reserve creates potential for setting up industries in energy sector. Tripura has vast reserve of natural gas. The gas is available in non-associate form, with high methane content of up to 97%. Till 31.03.2015 ONGC achieved peak rate gas production of 4.437 MMSCMD in Tripura. State Government is encouraging private sector investment in gas based industries. Natural Gas is presently used mainly for generation of power and to some extent in Domestic, Industrial, Commercial and Transport sector. Emphasis may be given for setting up of industries where gas will be utilized as feedstock like ammonia, urea, methanol and methanol based petrochemical industries.

The availability of superior quality natural gas offers a great opportunity to prospective investors, to set up gas-based industrial units, using natural gas as Feedstock, like urea, methanol, PVC and other projects. Besides this, Natural gas can also be utilized as a cheaper source of energy for various energy- intensive industrial projects.

The location of Tripura is strategic in the International context, being between Bangladesh on one side and South East Asia on the other. In the past, the State had natural communication link - roads, rail and waterways - with and through Bangladesh. Efforts are on for revival of these. Many major cities of Bangladesh and towns in Tripura are closely located, such as Agartala-Dhaka - 150 km; Kailashahar- Sylhet - 90 km; Sabroom-Chittagong - 75 km; Sonamura-Comilla - 25 km etc. The direct distance between Agartala and Kolkata, through Bangladesh, is only 350 km.

The agreements signed between India and Bangladesh during the visit of the Prime Minister of Bangladesh to India in January 2010 have opened new vistas for establishing closer links between Tripura and Bangladesh. The Govt. of Bangladesh has agreed to provide India access to Chittagong Port for movement of goods to and from India through road and rail. It has also been agreed to operationalize the Sabroom (Tripura)-Ramgarh (Bangladesh) Land Custom Station which is only about 75 km. from Chittagong Port. This will make transit through Bangladesh a reality and will make Tripura the Gateway to the North East. There are agreements to establish other transport links between Tripura and Bangladesh as well.

The State is gearing to perform its natural and geographically assigned role of the Gateway to the North East India and ONGC is truly gearing up for fulfilling the never ending demands of gas production which has already put Tripura State in National map of India.

Setting up of OTPC - a mega power project in a land-locked, logistically challenged and difficult hilly terrains in one of the remotest parts of the country has paved the way for effective utilization and monetization of discovered gas. ONGC is proud to be the **"Partner in Progress"** of Tripura and will be looking forward to contribute more intensively for the prosperity of the State in particular and the entire NE region in general. OTPC will meet the needs of power deficient states and open up new avenues for industrialization of the state of Tripura and entire of NE region.

ONGC has generated gas profile (Fig:5) for supply of 5.1 MMSCMD from 2014-15 to 2031-32 to meet the commitment to OTPC, NEEPCO, TSECL, and TNGC.

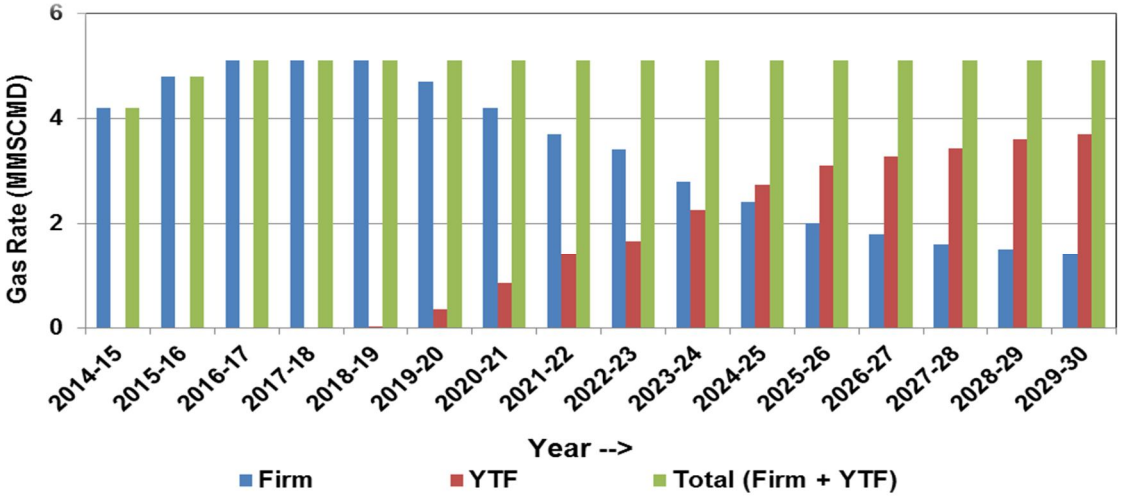

Fig: 5 Gas profile

Production Plan and Surface Facilities for Tichna Gas Field

All the gas wells of Tichna field will be connected to Tichna manifold. The produced gas at Tichna manifold will be transported to Sonamura GCS through 17 Km (8" & 6") pipeline (Fig.6). The estimated cost for the project is 72.9 Crore. The envisage year wise production plan based on the estimated volume have been worked out and tabulated below:

Year wise Production Plan for Tichna Field

Year	Daily Production, MMSCMD	Remarks
1	0.27	The envisaged daily production is based on the estimated in-place gas volume. In case of exploratory success existing development plan will be revised and accordingly surface capacity will be enhanced from Tichna Manifold to Tichna GGS.
2	0.32	
3	0.27	
4	0.22	
5	0.19	
6	0.16	
7	0.13	
8	0.12	

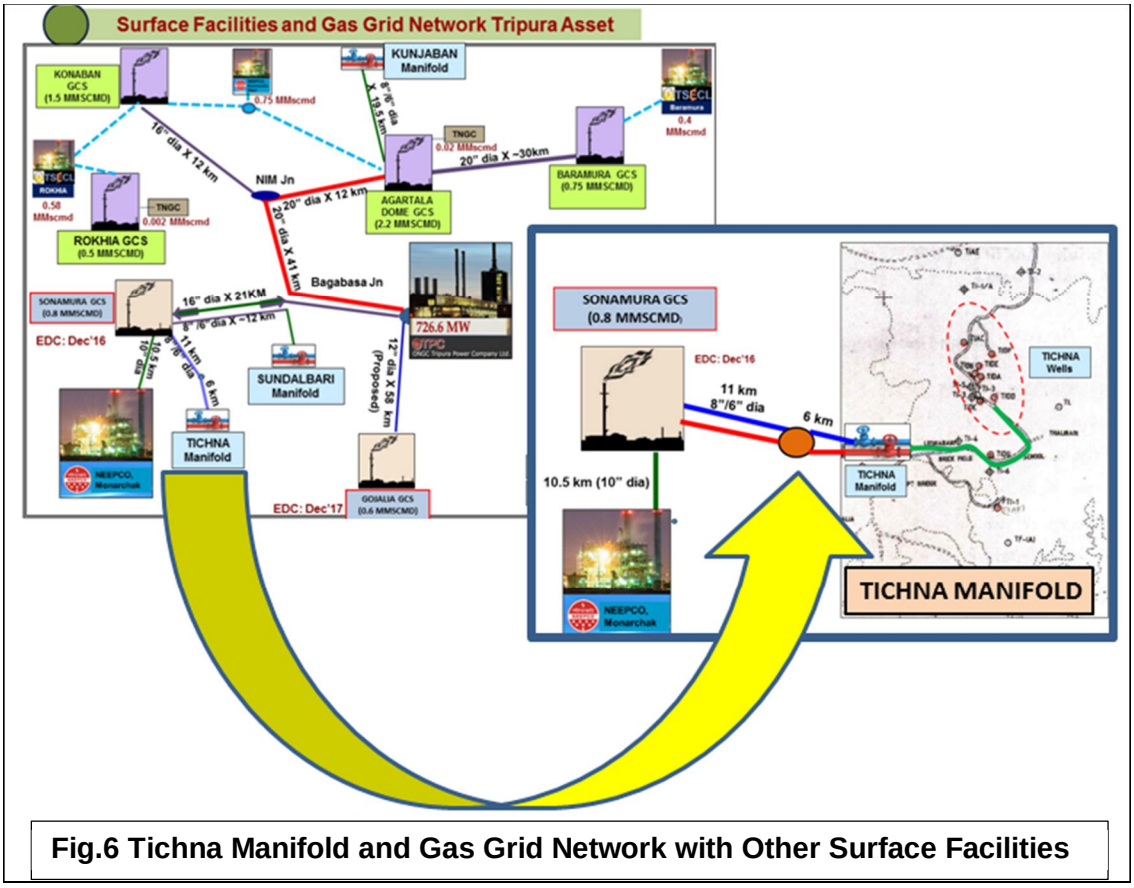

Fig.6 Tichna Manifold and Gas Grid Network with Other Surface Facilities

8. DETAILS OF PROPOSED DRILLING LOCATION

In view of the gas supply commitment and ever increasing gas demand the untapped gas reserve of Tichna field needs to be explored and exploited for meeting the needs of the people with possible minimum impact on environment. To explore and exploit at present there are three released exploratory 'B' category locations, namely; TIAC, TIAF & TIAG and also six released development locations namely; TIDA, TIDC, TIDD, TIDE, TIDF and TIDG are available. The surface location co-ordinates are given in **Annexure-I**. All the locations are located within Trishna WLS close to the existing road between Taibandal in the north and Kathalia under Sonamura sub-division, Sepahijala district.

9. DETAILS OF AVAILABLE GAS WELLS

Apart from above proposed drilling activities, there are 2 discovery gas wells namely TI-5 (TIAB) and TI-6 (TI). These wells were drilled as an exploratory well during 2000. The details of these wells are as follows.

TI#5 is discovery well at shallow depth which was drilled upto a depth of 851m and produced gas from Bokabil Formation @ 20,000 m3/d from a depth of 694-698m in pay sand TP-10. Another pay sand TP-7 was established in this Bokabil Formation at a depth of 517-514m which produced gas @16,000 m3/d.

Another discovery well TI#6 drilled upto a depth of 2450 m has also produced gas on commercial quantity from the Middle Bhuban Formation in pay sands TP-50 and TP-40. Pay sand TP-50 produced gas @80,649 m3/day from the interval 2026-2022m and TP-40 produced gas @1,01,175 m3/day from the interval 1701.5-1698, 1678-1675, 1655-1650m. Since the above mentioned 2 drilled wells namely TI-5 and TI-6 are readily available for production which at present are temporarily cement plugged, will be put back on production after necessary work over jobs to exploit gas.

The total quantum of forest land required for the drill sites of nine locations (3 exploratory & 6 development) and one common DSA comes out to be 14.523 **hectare**. The details of the locations/wells are given below.

i. Project TIAC (Exploratory)

This location with target depth of 1550m is proposed for drilling exploratory well to explore Upper Bhuban sands encountered in well TI-1A of Tichna field. It is located at Suknachara, Ullukhula, South Taibandul area and falls in forest covered land. It is proposed for diversion of 1.368 hectares of forest land for construction of drill site and approach road.

ii. Project TIAF (Exploratory)

This location with target depth of 2500m is proposed for drilling exploratory well to explore Middle Bhuban sands in Tichna field. It is located at Kalachora, Jagatrampur area and falls in rubber plantation and cultivated land. It is proposed for diversion of 1.36 hectares of land for construction of drill site and approach road.

iii. Project TIAG (Exploratory)

This location with target depth of 2500m is proposed for drilling exploratory well to explore Middle Bhuban sands in Tichna field. It is located at Ullukhola, Khalibadi, Jagatrampur area and falls in sparse vegetation covered land. It is proposed for diversion of 1.42 hectares of land for construction of drill site and approach road.

iv. Project TIDA (Development)

This location with target depth of 800 m is proposed for development of TP-10 pay sand of Tichna field. The anticipated gas production rate for TIDA is expected in the range from 30,000 to 45 000 m3/d. It is located at Ullukhola, Khalibadi,Jagatrampur area. It is proposed for diversion of 1.76 hectares of land for construction of drill site and approach road.

v. Project TIDC (Development)

This location with target depth of 800 m is proposed for development of TP-10 pay sand of Tichna field. The anticipated gas production rate for TIDC is expected in the range from 30,000 to 45 000 m3/d. It is located at Ullukhola, Khalibadi, Jagatrampur area and falls in paddy land. It is proposed for diversion of 1.445 hectares of land for construction of drill site and approach road.

vi. Project TIDD (Development)

This location with target depth of 800 m is proposed for development of TP-10 Pay sand of Tichna field. The anticipated gas production rate for TIDD is expected in the range from 30,000 to 45 000 m3/d. It is located at Ullukhola, Khalibadi, Jagatrampur area. It is proposed for diversion of 1.514 hectares of land for construction of drill site and approach road.

vii. Project TIDE (Development)

This location with target depth of 800 m is proposed for development of TP-10 pay sand of Tichna field. The anticipated gas production rate for TIDE is expected in the range from 25,000 to 40 000 m3/d. It is located at Bellabari, Suknachara, Jagatrampur area. It is proposed for diversion of 1.496 hectares of land for construction of drill site and approach road.

viii. Project TIDF (Development)

This location with target depth of 800 m is proposed for development of TP-10 pay sand of Tichna field. The anticipated gas production rate for TIDF is expected in the range from 30,000 to 40 000 m3/d. It is located at Bellabari, Suknachara, Jagatrampur area. It is proposed for diversion of 1.96 hectares of land for construction of drillsite and approach road.

ix. Project TIDG (Development)

This location with target depth of 2150 m is proposed for development of TP-50 pay sand of Tichna field. The anticipated gas production rate for TIDG is expected in the range from 30,000 to 40000 m3/d. It is located at Nachunia, Thalibadi, Jagatrampur area. It is proposed for diversion of 1.36 hectares of land for construction of drillsite and approach road.

x. Project Common DSA (Drillsite Accommodation)

For carrying out the drilling activities of exploratory and development well, a common accommodation site for the crew members is identified. It is located at Ullukhola, Khalibadi,Jagatrampur area and partly falls in cultivated land. It is proposed for diversion of 0.84 hectares of land for construction of drill site accommodation and approach road.

Annexure-I

List of Locations with Surface Point Coordinates and their Details

S. N.	Location Name	Depth (m)	Surface Co-ordinates in WGS-84		Area (Ha)	Remarks
			Latitude	Longitude		
1	TIAC	1550	23° 24'12.0149" N	91° 21'26.7155" E	1.368	Exploratory Drilling
2	TIAF	2500	23° 21'12.7368" N	91° 22'02.8194" E	1.360	Exploratory Drilling
3	TIAG	2500	23° 23'19.19" N	91° 21'31.55" E	1.420	Exploratory Drilling
4	TID-A	800	23° 23'38.2144" N	91° 21'47.1407" E	1.760	Development Drilling
5	TID-C	800	23° 23'12.7611" N	91° 21'37.3382" E	1.445	Development Drilling
6	TID-D	800	23° 23'15.2319" N	91° 21'56.4316" E	1.514	Development Drilling
7	TID-E	800	23° 23'47.8665" N	91° 21'30.3119" E	1.496	Development Drilling
8	TID-F	800	23° 24'05.8011" N	91° 21'47.7669" E	1.960	Development Drilling
9	TID-G	2150	23° 22'13.3438" N	91° 21'49.4857" E	1.360	Development Drilling
10	Drill Site Accommodation (DSA)	-	23° 23'20.035" N	91° 21'33.963" E	0.840	Accommodation site
Total Area					14.523	

Annexure-II

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F. No. J-11011/637 /2007- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003
E-mail : plahujarai@yahoo.com
Telefax: 011 – 2436 3973
Dated: October 19, 2007

To,

M/s Oil and Natural Gas Corporation Limited
Assam and Assam Arakan Basin, Jorhat
Office of Basin Manager
2nd Floor Luit Bhavan
Cinnamara Complex, Jorhat
Assam – 785 704

Sub: Exploratory Drilling for Oil & Gas at Assam Arakan Fold Belt Block in Trishna Reserve Forest Area, West Tripura District, Tripura by M/s ONGC – reg environmental clearance.

Sir,

This has reference to your letter no. A & AAB/HSE/APCB/Environment Clearnce/07 dated 26th June, 2007 on the above mentioned subject.

2. The above proposal for exploratory drilling for oil and gas was considered in its 72nd meeting held on 18th September, 2007. It is noted that all the drilling wells are falling in the Wildlife sanctuary. You are advised to obtain permission from the National Board for Wildlife before obtaining environmental clearance.

Yours faithfully,

(Dr. P. L. Ahujarai)
Director

Annexure III

MAP SHOWING PROPOSED DRILLING LOCATIONS IN TRISHNA WLS