

**PROJECT COMPLETION REPORT (PCR)
IMED 04/2003 (REVISED)**

FOR

**3D seismic survey at Beanibazar Field under Sylhet Gas
Fields Limited (SGFL), 1ST REVISED**

**SYLHET GAS FIELDS LIMITED
(A COMPANY OF PETROBANGLA)**

August, 2024

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Government of the People's Republic of Bangladesh
Ministry of Planning
Implementation Monitoring and Evaluation Division

PROJECT COMPLETION REPORT: IMED 04/2003 (Revised)

A. PROJECT DESCRIPTION:

01. Name of the Project : 3D seismic survey at Beanibazar Field under Sylhet Gas Fields Limited (SGFL), 1ST REVISED .
02. Administrative Ministry/Division : Ministry of Power, Energy and Mineral Resources/ Energy and Mineral Resources Division.
03. Executing Agency : Sylhet Gas Fields Limited .
(A Company of Petrobangla)
04. Location of the Project : Beanibazar, Sylhet.
05. Objective of the Project :
- a) To estimate the hydrocarbon reserve and resource through geological, geophysical and reservoir modeling and identify locations of new wells.
- b) To conduct 3D seismic survey over the area of 191 square kilometer at Beanibazar field.

06. Estimated Cost:

(In lakh Taka)		
	Original (As per DPP)	Latest Revised (As per RDPP)
(a) Total	4633.00	5860.00
(b) Taka	4633.00	5860.00
(c) Foreign Currency	3708.00	4719.00
(d) Project Aid	-	-
(e) RPA	-	-

07. Date of Approval	:	PCP	DPP/RDPP
(a) Original	:	Not Applicable	03.12.2020
(b) Latest Revised	:	Not Applicable	27.12.2023



08. Implementation Period:

	Date of Commencement	Date of Completion
(a) Original	October, 2020	December, 2022
(b) Time extension without cost increasing	October, 2020	December, 2023
(c) Latest Revised (1 st Revised)	October, 2020	June, 2024
(d) Actual	October, 2020	June, 2024

09. Financing Arrangement (Source-wise):

9.1 Status of Loan/Grant

a) Foreign Financing: Not Applicable.

Source (s)	Currency as per Agreement	Amount in US \$ (Million)	(Loan/Grant/ Supplier's/ Credit)	Date of Agreement	Date of Effective-ness	Date of Closing	
						Original	Revised
1	2	3	4	5	6	7	8
-	-	-	-	-	-	-	-

b) GoB: Not Applicable.

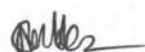
(In lakh Taka)			
Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
-	-	-	-

c) GDF (Gas Development Fund): Not Applicable.

(In lakh Taka)			
Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
-	-	-	-

d) Own Finance:

(In lakh Taka)			
Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
5860.00	-	-	4719.00



9.2 Utilization of Project Aid (Source wise): Not Applicable.

(In million)

Source (s)	Total Amount		Actual Expenditure		Unutilized Amount	
	In US \$	In Local Currency	In US \$	In Local Currency	In US \$	In Local Currency
1	2	3	4	5	6	7
-	-	-	-	-	-	-

9.3 Re-imbursable Project Aid (RPA): Not Applicable.

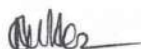
(In lakh Taka)

RPA Amount		Amount Spent	Amount Claimed	Amount Re-imbursed	Remarks
As per PP	As per Agreement				
1	2	3	4	5	6
-	-	-	-	-	-

B. IMPLEMENTATION POSITION

01. Implementation Period:

Implementation Period as per DPP/RDPP		Actual Implementation Period	Time Over-run (% of original implementation period)	Remarks
Original	Latest Revised			
1	2	3	4	5
October 2020 to December 2022	October 2020 to June 2024	October 2020 to June 2024	66.67%	The 3D seismic data acquisition was completed in February 2023, and the data processing deliverables were received in June 2023. However, due to a retender and flooding in Zhuozhou City, China, the project's implementation period had to be extended. It can be noted that according to the contract, the data processing and interpretation work was carried out at GRI in Zhuozhou City, China..



02. Cost of the Project:

(In lakh Taka)

Description	Estimated Cost		Actual expenditure	Cost over-run (% of original cost)	Remarks
	Original (As per DPP)	Latest revised (As per RDPP)			
1	2	3	4	5	6
TOTAL	4633.00 (3708.00)	5860.00 (4719.00)	5601.31 (4525.74)	20.90%	The cost of the project in Taka has increased primarily due to changes in the dollar exchange rate, even though the amount in US dollars has remained unchanged.
TAKA	4633.00 (3708.00)	5860.00 (4719.00)	5601.31 (4525.74)	20.90%	
PA	-	-	-	-	

03. Project Personnel:

Sanctioned strength as per RDPP	Manpower employed during execution	Status of the existing manpower			Manpower Employed	
		Manpower requirement for O & M as per DPP	Existing manpower for O & M	Others		
1	2	3	4	5	Male	Female
Officer(s)-9nos.	4*	**	-	-	4*	-
Staff(s)-3 nos.	1*	**	-	-	1*	-
Total:12 nos.	5*	**	-	-	5*	-

* 1. Manpower for execution of the project has been provided from the existing strength of SGFL.

** 2. No additional manpower is required for O & M.

Signature

04. Training of Project Personnel (Foreign/Local): Not Applicable.

Field of Training /Study tour/workshop/ Seminar etc.	Provision as per DPP		Actual		Remarks
	Number of persons	Man - months	Number of persons	Man - months	
1	2	3	4	5	6
a. Foreign	-	-	-	-	
b. Local	-	-	-	-	

05. Component-wise Progress (As per latest approved RDPP):

(In lakh Taka)

Code No.	Items of work (as per RDPP)	Unit	Target (as per RDPP)		Actual Progress		Reasons for deviation (±)
			Financial	Physical (Quantity)	Financial	Physical (Quantity)	
1	2	3	4	5	6	7	8
(a) Revenue Component							
3111332	Honorarium allowance	LS	6.33	-	6.15	-	At actual (-0.18)
3211106	Entertainment expenses	LS	4.64	-	4.20	-	At actual (-0.44)
3211107	Hiring, Microbus	No.	24.39	1	24.39	1	At actual (0.00)
3211111	Seminar/Conference expenses, Workshop etc.	No.	2.85	12	2.85	12	At actual (0.00)
3211116	Courier	No.	0.10	9	0.10	9	At actual (0.00)
3211119	Postage	No.	0.04	40	0.04	40	At actual (0.00)
3211125	Advertising expenses	No.	0.96	3	0.96	3	At actual (0.00)
3211127	Books & periodicals (journals, satellite Images etc.)	No.	0.20	13	0.20	13	At actual (0.00)
3221102	License fee (for Environment clearances)	Package	0.80	1 Package	0.80	1 Package	At actual (0.00)
3221108	Bank charge	%	85.90	0.40%	64.29	0.40%	At actual (-21.61)
3255105	Office stationery	Package	3.19	1 Package	3.19	1 Package	At actual (0.00)
3256101	Personal protective equipment (PPE)	Package	1.00	1 Package	1.00	1 Package	At actual (0.00)

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3257101	a) Consultancy, Engage Service Provider (For Seismic data acquisition, processing, and interpretation reports over the area of 191 square kilometer)	Package	4628.00 (4628.00)	1 Package	4525.74 (4525.74)	1 Package	At actual (-102.26) RDPP cost was estimated at the rate of Tk 114.00, but the payment was made at the rate of Tk 110.00. Therefore, the total expenditure has been reduced
	b) Consultancy, Local Consultancy Services	Man-month	32.00	16	31.79	16	At actual (-0.21)
3257104	Survey, IEE/EIA/EMP study	Package	2.00	1	2.00	1	At actual (0.00)
3258103	Repairs and maintenance of Computer	No.	0.40	8	0.20	8	At actual (-0.20)
3821104	Value added tax	%	699.00	15%	683.63	15%	At actual (-15.37)
3821125	Income tax	%	246.20	5.25% & 10%	240.78	5.25% & 10%	At actual (-5.42)
Sub-Total (Revenue component)			5738.00 (4628.00)		5592.31 (4525.74)		
(b) Capital Component							
	Acquisition of Asset						
4112202	Computers and accessories (Desktop-2 nos., laser printer-2nos., laptop-1 no., scanner-1no., UPS-2nos.)	No.	3.00	8	3.00	8	At actual (0.00)
4112310	Office equipment, Photocopier (Heavy Duty)	No.	2.00	1	2.00	1	At actual (0.00)
4112314	Furniture for office	No.	4.00	13	4.00	13	At actual (0.00)
Sub-Total (Capital Component)			9.00 (0.00)		9.00 (0.00)		
Total of Revenue and Capital Item (a+b)			5747.00 (4628.00)		5601.31 (4525.74)		
(c) Price Contingency		%	113.00 (91.00)	2	0.00 (0.00)		
Grand Total (a+b+c+d)			5860.00 (4719.00)		5601.31 (4525.74)		

[Signature]

06. Information regarding Project Director (s):

Name & Designation with pay Scale	Full time	Part-time	Responsible for more than one project	Date of		Remarks
				Joining	Transfer	
1	2	3	4	5	6	7
Engr. Nipun Chandra Samadder Deputy General Manager & Project Director Tk. 50,000-71,200	Yes	No	No	28.03.2021	Till end of the Project	-

07. Procurement of Transport (in Nos.): Not Applicable

Type of Transport	Number as per RDPP	Procured with date	Transferred to Transport Pool with date	Transferred to O & M with date	Condemned/ damaged with date	Remarks
1	2	3	4	5	6	7
Car	-	-	-	-	-	-
Jeep	-	-	-	-	-	-
Microbus	-	-	-	-	-	-
Minibus	-	-	-	-	-	-
Bus	-	-	-	-	-	-
Pick-up	-	-	-	-	-	-
Truck	-	-	-	-	-	-
Motorcycle	-	-	-	-	-	-
By-cycle	-	-	-	-	-	-
Speed Boat	-	-	-	-	-	-
Launch	-	-	-	-	-	-
Others with name	-	-	-	-	-	-

08. Procurement of Goods, Works and Consultancy Services:

08.1 Goods & works of the project costing above Tk. 200.00 lakh. and consultancy above Tk.100.00lakh:

Description of procurement (goods/works /consultancy) as per bid document	Tender/Bid/Proposal Cost (Taka in crore)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per RDPP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Services:						
Package-1						
Consultancy, Engage Service Provider (For Seismic data	46.28	46.28	27.05.2021	15.06.2022	31.03.2024	31.03.2024

acquisition, processing, and interpretation reports over the area of 191 square kilometer)						
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08.2 Use of Project Consultant (s) (Foreign/Local):

Name of the Field	Approved man-month		Actual man-month utilized	Remarks
	As per RDPP	As per contract		
1	2	3	4	5
a) Foreign:	-	-	-	Not applicable
b) Local:	16	16	16	The consultancy services were engaged for 16 man-months. According to project requirements they engaged and paid actual day basis 31.79 Lac taka.

09. Construction/Erection/Installation Tools & Equipment:

It is a turnkey project. Seismic Service provider provide service along with all necessary tools and equipment.

C. FINANCIAL AND PHYSICAL PROGRAMME:

01. (a) Original and revised schedule as per DPP:

(In lakh Taka)

Financial Year	Financial provision & physical target as per original DPP				Financial provision & physical target as per latest revised DPP			
	Total	Taka	P.A	Physical %	Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9
2020-2021	40.00	40.00	-	1%	7.80	7.80		0.17%
2021-2022	2237.00	2237.00	-	50%	27.00	27.00		0.56%
2022-2023	2356.00	2356.00	-	49%	2309.00	2309.00		40.55%
2023-2024	0.00	0.00	-	-	3516.20	3516.20		58.72%
Total =	4633.00	4633.00	-	100.00	5860.00	5860.00		100.00%

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01. (b) Revised ADP allocation and progress:

(In lakh Taka)

Financial Year	Revised Allocation & target				Taka release	Expenditure & physical progress			
	Total	Taka	P.A.	Physical %		Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9	10
2020-2021	8.00	8.00	-	9.03%	-	7.80	7.80	-	6.06%
2021-2022	27.00	27.00	-	20.04%	-	27.00	27.00	-	14.32%
2022-2023	2309.00	2309.00	-	41.99%	-	2309.00	2309.00	-	50.68%
2023-2024	3516.20	3516.20	-	28.94%	-	3257.31	3257.51	-	28.94%
Total	5860.20	5860.20	-	100.00%	-	5601.11	5601.11	-	100.00%

D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:

Objectives as per RDPP	Actual Achievement	Reasons for shortfall, if any
(a) To estimate the hydrocarbon reserve and resource through geological, geophysical and reservoir modeling and identify locations of new wells.	(a) One appraisal cum exploration well and three exploration wells are proposed in the MBB (LGS), LBB, and UBH formations. A total of eight prospects have been identified, which are either stratigraphic or stratigraphic-structural traps. The estimated natural gas volumes are as follows: • High Estimate: 1333.53 BCF • Best Estimate: 866.79 BCF • Low Estimate: 132.91 BCF	-
(b) To conduct 3D seismic survey over the area of 191 square kilometer at Beanibazar field.	(b) 3D seismic survey (Data Acquisition, Processing and Interpretation) over the area of 191 square kilometer at Beanibazar field has been completed.	-

E. BENEFIT ANALYSIS

01. Annual Out-put:

The final results of this project will provide reports and data, which will play a significant role in decision-making in future gas exploration/evaluation/development activities. Based on the results obtained from the aforementioned 3D seismic survey, there is potential for good results in subsequent well drilling and workover activities. Since no direct income will be available from this project, financial and economic analysis has not been done.

02. Cost/Benefit: Not Applicable.

(Since no direct income will be available from this project, financial and economic analysis has not been done.)

03. Please give reasons for shortfall, if any, between the estimated and actual benefit: Not Applicable.

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F. MONITORING AND AUDITING

1. Monitoring:

Name & designation of the inspecting official	Date of Inspection	Identified Problems	Recommendations
1	2	3	4
(a) Ministry/Agency:			
1. Md. Khalek Mallik, Additional Secretary (Admin), Energy & Mineral Resources Division & other members of seismic monitoring team	15.10.2021 08.10.2022	Found no problem	N/A
2. Md. Hasanuzzaman, Deputy Secretary (Planning-2) Energy & Mineral Resources Division	16.01.2023	Found no problem	N/A
(b) IMED :			
1. Umme Israt Sr. Assistant Chief Industry and Energy Wing, Planning Commission	06.12.2021	Found no problem	N/A
(c) Petrobangla & Others :			
1. Ali Iqbal Nurullah, Director (Planning), Petrobangla	05.10.2020	Found no problem	N/A
2. Md. Abdul Mannan Patwary, Director (Planning), Petrobangla	13.01.2023	Found no problem	N/A
3. Rupok Pal Assistant Manager (Engineering) Petrobangla	05.01.2023	Found no problem	N/A

2. Auditing during and after Implementation:

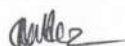
2.1. Internal Audit:

Period of Audit	Date of submission of Audit Report	Major findings/ objections	Whether objections resolved or not.
1	2	3	4
All payment for procurement of materials, services and works of this project was made through accounts & finance division after being audited by Audit department of SGFL.		None	N/A

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2.2. External Audit:

Audit period	Date of submission of Audit Report	Major findings/ objections	Whether objections resolved or not.
1	2	3	4
2020-2021	10.02.2022	No objection was given by external audit team.	Not Applied
2021-2022	10.01.2024	No objection was given by external audit team.	Not Applied
2022-2023	10.01.2024	No objection was given by external audit team.	Not Applied
2023-2024	Not yet done.		



G. DESCRIPTIVE REPORT

1. General Observations/Remarks of the Project on:

1.1 Background:

Sylhet Gas Fields Limited (SGFL), a company of Petrobangla, belong to Sylhet (Haripur), Kailashtilla, Rashidpur and Beanibazar fields. Based on the results of the 2D seismic survey conducted by Petrobangla in 1979, Bianibazar-1 well was drilled in 1980-81 and Bianibazar-2 well in 1988 in Bianibazar gas field.

In 1998, BGFCL's Feni gas field silica gel plant was relocated to Biyanibazar gas field and gas production started from this field on a commercial basis from May 1999. Gas production was started on 11.05.1999 from lower gas sand of Biyanibazar-1 well. In the initial condition, 16-20 million cubic feet of gas has been produced daily from this well at a pressure of 2900-3200 psig (flowing wellhead pressure). The water production rate at that time was approximately 0.5 barrels per million cubic feet of gas. Gas production from the well ceased on 14.03.2014 due to decrease in flowing wellhead pressure and significant increase in water production of the said well. On the other hand, gas production started on 12.05.1999 from upper gas sand of Biyanibazar-2 well. In the initial condition, gas has been produced at a rate of 16 million cubic feet per day at a flowing wellhead pressure of 3400 psig from this well. Water production rate at that time was 2 barrels per million cubic feet of gas. Gas production is gradually decreasing as water production rate increases. In time of initiation of this project, September 2019 water production rate was 47 barrels/mmcf and daily gas production was 8.5 million cubic feet.

Based on the report dated 27.12.2015 of the committee formed by Petrobangla regarding the feasibility of bringing the suspended wells of Petrobangla companies back to production through remedial work in Biyanibazar-1 well from the surface on 26.12.2016 at the rate of approximately 4 million cubic feet per day. At that time, the well's flowing wellhead pressure and gas-water ratio were 2380 psig and 163 bbl/mmcf, respectively. Later, the water production started to increase along with the gradual decrease in the wellhead pressure and gas production from the well stopped on 14.10.2017.

According to the report prepared by Hydrocarbon Unit in 2003 GIIP gas reserve in Lower Sand is 56.1 BCF, Recoverable Gas is 39.27 BCF and GIIP in Upper Sand is 187.00 BCF and Recoverable Gas is 130.90 BCF. The amount of gas production from lower and upper sand of Biyanibazar field till June 2019 is 35.37 and 61.17 BCF respectively.

According to the calculation of hydrocarbon units, the remaining recoverable gas reserves in the lower and upper sands of the field are 3.90 and 69.73 BCF respectively. For drilling more new wells, it is necessary to know the detailed information about the reserves of this structure and the composition of the reservoir.

There is no alternative to drilling new wells to meet the growing gas demand of the country. 3D seismic survey is essential for accurate reserve determination for drilling development wells. From the latest technology 3D seismic survey results (data collection, processing, interpretation), the exact picture of the expansion of the Biyanibazar gas field reservoir, presence of new sand, extent, thickness, continuity etc. will be known. As a result, it will be possible to identify the correct location for drilling new wells in Biyanibazar field. As a result, the financial risk of well drilling will be reduced to a large extent.



1.2 Justification/Adequacy:

In the report submitted on 26.08.2019, the committee consisting of concerned officials of Petrobangla, SGFL and Bapex for the purpose of recommending detailed areal coverage and technical aspects for 3D seismic survey in the relinquished area of Acreage Block 12, 13 and 14. The following recommendations are made upon completion of 3D seismic surveys in the field.

- (a) 3D seismic survey can be conducted in an area of 191 square kilometers (84 inside the ring fenced area and 107 outside the ring fenced area) in the Biyanibazar structure.

According to the committee's recommendation, SGFL decided to initiate a seismic project in Beanibazar.

1.3 Objectives:

- a) To estimate the hydrocarbon reserve and resource through geological, geophysical and reservoir modeling and identify locations of new wells.
- b) To conduct 3D seismic survey over the area of 191 square kilometer at Beanibazar field.

1.4 Project revision with reasons:

"3-D Seismic Survey at Biyanibazar Field under Sylhet Gas Fields Limited (SGFL)" to be implemented by the company with its own finance has been approved by the Ministry on 03.12.2020. According to the approved DPP, a total of 4633.00 lakhs taka including 3708.00 lakhs taka in foreign currency and 925.00 lakhs taka in local currency have been allocated for the implementation of the discussed project and implementation period of the project was from October 2020 to December 2022. Due to retendering requirement the implementation period of the project increased from October 2020 to December 2023 without increasing the cost. Due to fluctuations in the foreign exchange rate and changes in the expenditure of various items, the Revised Development Project Proposal (1st RDPP) a total cost is 5860.00 (4719.00) lakh taka was submitted to the Energy and Mineral Resources Division through Petrobangla. Administrative approval for this proposal was granted on December 27, 2023.

At the time of formulation of DPP, taking into account the foreign currency exchange rate of 1 US dollar = 84.80 taka, the expenditure of engage of Seismic Service Provider (Code-3257101) is estimated at 3600.00 lakh taka.

The 1st bill submitted by the Seismic Service Provider Company was paid in foreign currency of 2032.09 lakh taka at the rate of 1 US Dollar= Tk 109.08. 2nd bill of Tk 343.45 lakh at the rate of 1 US Dollar = 110.00 taka

The remaining payment to the seismic service provider will be made in foreign currency. The US dollar exchange rate against the taka was in an upward trend.

The cost of the Seismic Service Provider in Taka has increased, even though the amount in US dollars remains unchanged. Given the anticipated rise in the foreign currency exchange rate during the remaining payment for the Seismic Service Provider, an exchange rate of 1 US

dollar = 114.00 Taka results in an estimated cost of 4,628.00 lakhs Taka. This is 1,028.00 lakhs Taka higher than the DPP.

Due to the increase in expenditure (in BDT) in the engage of service provider sector, the estimated expenditure in the value added tax sector is 699.00 lakh taka, which is 153.60 lakh taka more than the DPP and the estimated expenditure in the income tax sector is 246.20 lakh taka, which is 55.20 lakh taka more than the DPP.

As LC opening charges increased from 0.085% to 0.40% and LC tenure extended up to March 2024, bank charges (code-3221108) expenditure is 85.90 lakhs taka, which is 73.90 lakhs taka more than DPP.

Expenditure on PSC, PIC and DPEC Meeting Honorary Allowance (Code-3111332) was 6.15 lakh taka, which is 3.15 lakh more than DPP due to extension of project tenure.

Also taking into account the real cost there has been a decrease/increase in expenditure in some items.

BGP Inc., China conducted interpretation activities at Geophysical Research Institute (GRI), Zhuozhou City, Hebei Province, China. There, continuous heavy rains and flood conditions hampered the project activities. For that reason the latest revised project implementation period is December 2020 to June 2024.

2. Rationale of the project in respect of Concept, Design, Location and Timing:

At present, demand for natural gas outweighs supply in almost all sectors, and this has resulted in a shortage throughout the country. It is very much essential for us to explore new natural gas and oil. As one of the largest deltas globally, Bangladesh holds the promise of being a region abundant in natural gas reserves. Despite a slow and almost negligible pace of exploration for over a decade, geological analyses of the area indicate significant evidence pointing towards the potential discovery of substantial gas reserves.

There is still a large amount of oil and gas resources (conventional and unconventional) in the country, which are conducted on a wide-based exploration, and the relevant experts of the country and abroad expressed the opinion that it is necessary to take necessary steps to produce them. Considering the future energy security of Bangladesh, it is very important to carry out seismic surveys in new areas. The project Concept is to address the requirement to explore new domestic gas and oil reserve.

The project involves the design of a 3D seismic survey, which aims to optimize data acquisition for accurate subsurface imaging. This process includes selecting appropriate survey parameters, such as source and receiver spacing, line orientation, and coverage area, to ensure high-resolution data. The survey is tailored to the specific geological targets and surface conditions, with the goal of minimizing environmental impact while maximizing data quality.

The project location was selected based on the results of a 2D seismic survey conducted by Petrobangla in 1979. Following this survey, the Bianibazar-1 well was drilled in 1980-81, and the Bianibazar-2 well in 1988, both within the Bianibazar gas field.

The rationale for the project timing is two-fold: firstly, to explore new gas reserves and identify additional drilling locations, and secondly, to support Bangladesh's current stage of development. By producing more natural gas from the proposed wells, the project aims to enhance the quality of life for citizens, particularly those in middle socioeconomic groups.



3. Brief description on planning and financing of the project and its applicability:

♦ Project Identification:

The amount of gas production from lower and upper sand of Beanibazar field till June 2024 is 35.37 and 79.82 BCF respectively. According to the calculation of hydrocarbon units, the remaining recoverable gas reserves in the lower and upper sands of the field are 4.17 and 25.58 BCF respectively. Before drilling more new wells, it is necessary to know the detailed information about the reserves of this structure and the composition of the reservoir.

A committee comprising officials from Petrobangla, SGFL, and Bapex was formed to recommend detailed areal coverage and technical aspects for conducting a 3D seismic survey in the relinquished area of Acreage Blocks 12, 13, and 14. In their report, submitted on August 26, 2019, the committee recommended conducting a 3D seismic survey over the area of 191 square kilometer in the Beanibazar field. In the report submitted on 26.08.2019, the committee consisting of concerned officials of Petrobangla, SGFL and Bapex for the purpose of recommending detailed areal coverage and technical aspects for 3D seismic survey in the relinquished area of Acreage Block 12, 13 and 14. The following recommendation is made upon completion of 3D seismic surveys in the field.

“(a)3D seismic survey can be conducted in an area of 191 square kilometers (84 inside the ring fenced area and 107 outside the ring fenced area) in the Biyanibazar structure.”

The project was taken by SGFL as per the committee decision was financed from own fund of SGFL.

♦ Project Preparation:

Development Project Proposal was prepared by Planning Division of SGFL and getting consent from SGFL Board of Director's the DPP was sent to Energy and Mineral Resources Division (EMRD) for approval. The project was funded by SGFL own fund.

- ♦ **Appraisal:** The project appraisal was conducted by a committee consisting of officials from Petrobangla, SGFL, and Bapex. This committee was formed to address the gas shortage and explore new prospects for oil and gas.

- ♦ **Credit Negotiation:** Not Applicable.

- ♦ **Credit Agreement:** Not Applicable.

- ♦ **Credit Effectiveness:** Not Applicable.

- ♦ **Loan Disbursement:** Not Applicable.

- ♦ **Loan Conditionality:** Not Applicable.

♦ **Project Approval:**

Original DPP approved by Energy and Mineral Resources Division (EMRD) on 03.12.2020.

1st Revised DPP approved by Energy and Mineral Resources Division (EMRD) on 27.12.2023

♦ **Others (if any):** Not Applicable

4. Analysis of the post-implementation situation and result of the project :

4.1 Whether the beneficiaries of the project have clear knowledge about the Target/ Objectives of the project.

Yes, the beneficiaries of the project have clear knowledge about the Target/ Objectives of the project.

4.2 Programme for use of created facilities of the project.

Since 3D seismic data acquisition does not involve the creation of new facilities, there is no need for ongoing maintenance. However, the new seismic data obtained through acquisition, processing, and interpretation will be managed, stored, and regularly updated by the Reservoir and Data Management Division of SGFL.

SGFL personnel capacity (basic knowledge) was developed by different training program during project implementation.

4.3 O & M programme of the project.

Not applicable.

4.4 Impact of the project:

4.4.1 Direct:

- a) The final results of this project will provide reports and data, which will play a significant role in decision-making in future gas exploration/evaluation/development activities. Based on the results obtained from the aforementioned 3D seismic survey, there is potential for good results in subsequent well drilling and workover activities.

4.4.2 Indirect:

- a) The availability of natural gas at lower price (compared to LNG import price) will accelerate the growth of power, fertilizer and other relevant industries where gas is the main fuel/raw material.
- b) The availability of natural gas will create more employment opportunities for both men and women by enabling the establishment of additional gas-based industries and commercial units.

4.5 Transfer of Technology and Institutional Building through the project:

The project was implemented using the company's own technical personnel, with the assistance from the internationally reputed third-party seismic service provider company BGP Inc. CNPC, China. This collaboration aimed to enhance the technical capabilities of SGFL's personnels.

4.6 Employment generation through the project:

Local skilled and unskilled people got employment during execution period of the project.

4.7 Possibility of Self-employment: Not Applicable.

4.8 Possibility of women-employment opportunity:

Although the project has no direct impact on the women population, it will indirectly help the women. Along with the implementation of this project, gas based medium and small scale industries will be developed where women can be employed directly or indirectly.

4.9 Women's participation in development: Not Applicable.

4.10 Probable Impact on Socio-Economic Activities:

By this project the natural gas well locations is identified. After drilling the availability of natural gas will expand the generation & supply of electricity to the greater people of the country. This will have a positive impact on deforestation. This will also provide eco-friendly energy source to automobile in the form of CNG. The lifestyle of the household covered under gas supply network will be friendly improved.

4.11 Impact on environment:

EIA study was already conducted by a firm. Environment Clearance has been approved by Department of Environment (DoE) in favor of the project on 21.06.2022. It has been demonstrated in this EIA that this Project is feasible, and that the progression of the Project is in the interest of Bangladesh, by further developing. This EIA presents a comprehensive assessment of the potential impacts associated with the Project. The EIA also identifies and develops specific management and mitigation measures to address each potential impact. Residual risks have then been assessed and quantified to determine the potential effectiveness of the proposed management and mitigations, focusing on reducing the significance of the identified potential impact.

Feedback about the Project from consultation with government and community stakeholders has been generally positive. Support for the Project and useful information was provided by government stakeholders and there was a general consensus amongst the community that the proposed Project is in the nation's interest. Project stakeholders identified some concerns about the Project and where applicable to the Project, have been specifically addressed and cross referenced to management and mitigation measures for action through the implementation of the EMP.

This EIA has identified that there is the potential for significant negative environmental and social impacts as a result of the Project. However, this EIA has also determined that if comprehensive and effective management and mitigation measures are implemented as proposed, that the potential negative impacts should be reduced to non-significant level.

Further, this EIA has determined that the potential benefits of the Project are significant and that with the application of the management measures presented, these potential benefits may be promoted and enhanced to the advantage of people in the Project area.

This EIA has been developed to identify and comply with relevant GoB legislation specifically the Environment Conservation Act 1995 and the Environment Conservation Rules 1997. The DoE issued a terms and conditions for the project that have been specifically addressed in this EIA.

In conclusion, the overall potential negative impacts can be effectively mitigated and that the Project has the potential to result in several positive benefits. It is recommended that the proposed 3D Seismic Survey at Beanibazar Field Project proceeds with the effective implementation of the management and mitigation measures presented in this EIA. An Environmental Clearance Certificate (ECC) is accordingly requested for the 3D Seismic Survey at Beanibazar Field in favor of Sylhet Gas Fields Limited (SGFL).

4.12 Sustainability of the project:

The primary determinants of sustainability are economic, environmental and social all of which are definitely positive for this project. So, the project is socially and economically sustainable.

4.13 Contribution to poverty alleviation/reduction:

The scope of employment of mass people is limited in gas sector. However, employment in the gas-based industries/commercial units, of course, will provide employment opportunity, which will contribute to poverty alleviation.

4.14 Opinion of the public representatives, local elite, local administration, teachers, religious leaders, women's representatives etc.

They appreciate that the successful completion of the 3D seismic project will enable informed decision-making about drilling new wells and boost the country's hydrocarbon production.

4.15 Contribution of Micro-credit programmes and comments on overlapping with any NGO activities: Not Applicable

5. Problems encountered during Implementation(with duration & steps taken to remove those):

5.1 Project Management: Not Applicable.

5.2 Project Director: Not Applicable.

- 5.3 **Land Acquisition:** No land acquisition was required for this project.
- 5.4 **Procurement:** Not Applicable.
- 5.5 **Consultancy:** Not Applicable.
- 5.6 **Contractor:** Contractor appointment delayed due to re-tendering process.
- 5.7 **Manpower:** Not Applicable.
- 5.8 **Law & Order:** Not Applicable.
- 5.9 **Natural Calamity:**

After completing the seismic data acquisition activities as per the contract, the processing and interpretation were conducted at the Geophysical Research Institute (GRI) in Zhuozhou City, Hebei Province, China. However, the processing operations at GRI have been delayed due to severe flood conditions in the area. Moreover, the global COVID-19 pandemic situation also affected the work progress .

- 5.10 **Project financing, allocation and release:** Not Applicable.
- 5.11 **Design formulation/approval:** Not Applicable.
- 5.12 **Project aid disbursement and re-imbursement:** Not Applicable.
- 5.13 **Mission of the development partners:** Not Applicable.
- 5.14 **Time & Cost Over-run:**

The project experienced a time overrun due to re-tendering and flood conditions at the Geophysical Research Institute (GRI) in Zhuozhou City, Hebei Province, China, where the processing and interpretation work was carried out according to the contract.

The cost of the project in Taka has increased primarily due to changes in the dollar exchange rate, even though the amount in US dollars has remained unchanged.

- 5.15 **Project Supervision/Inspection:** Not Applicable.
- 5.16 **Delay in Decision:** Not Applicable.
- 5.17 **Transport:** Not Applicable.
- 5.18 **Training:** Not Applicable.
- 5.19 **Approval:** Not Applicable.
- 5.20 **Others:** Not Applicable.

6. Remarks & Recommendations of the Project Director:

Natural gas is essential for Bangladesh, providing fuel for electricity generation, fertilizer production, motorized vehicles, and serving as a critical reagent in various industrial processes. Currently, the demand for natural gas surpasses supply in nearly all sectors, causing a nationwide shortage. To address this challenge in line with the Sustainable Development Goals (SDGs), a project titled "3D seismic survey at Beanibazar Field under Sylhet Gas Fields Limited (SGFL)" is taken at self finance..

The project activities and progress are closely monitored by Energy and Mineral Resources Division (EMRD), Bangladesh Oil, Gas and Mineral Corporation (Petrobangla), Implementation, Monitoring and Evaluation Division (IMED) and SGFL.

We are fortunate to have experienced a lot by working with different Ministries, Divisions, Corporation, Banks, Seismic Service provider, Project Consultants, Civil Society. It is our pleasure to express gratitude to respective ministries and divisions, Petrobangla and SGFL board of directors to have full cooperation and directions to implement this project

The 3D seismic survey at Beanibazar Field was successfully completed. There are 3 exploration wells and 1 exploration/ appraisal wells are proposed which focus on MBB(LGS), LBB and UBH formations with a total of eight identified prospects. This outcome is expected to significantly increase the reserves of Sylhet Gas Fields Limited and Bangladesh. It will facilitate more new drilling locations, help to alleviate the energy crisis, and enhance local gas production in Bangladesh.

Date : 12.08.2024


Signature and seal of the Project Director

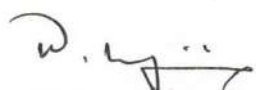
Engr. Nipun Chandra Samadder
Project Director
3D seismic survey at Beanibazar Field
under Sylhet Gas Fields Limited (SGFL)

7. Remarks/Comments of Agency Head:

a) Sylhet Gas Fields Limited:

The project was successfully completed with the cooperation of Petrobangla, EMRD, IMED, and the Planning Commission. There are 3 exploration wells and 1 exploration/ appraisal wells are proposed which focus on MBB(LGS), LBB and UBH formations with a total of eight identified prospects. These prospects, consisting of stratigraphic or stratigraphic-structural traps, have an estimated high potential of 1333.53 BCF, a best estimate of 866.79 BCF, and a low estimate of 132.91 BCF. This will facilitate new projects in the field, helping to partially meet the country's energy demand and save foreign exchange by reducing energy imports.

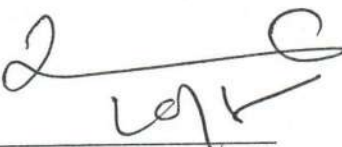
Date : 12/08/2024


Signature and Seal
Md. Mijanur Rahman
Managing Director
Sylhet Gas Fields Limited

b) Petrobangla:

The project has been completed within the stipulated time and cost.

Date :


Signature and Seal

8. Remarks/Comments of the officer in- charge of the Ministry/Division:

^

Date :

Signature and Seal



ANNEXURE-A

Approval of DPP and RDPP

Handwritten signature

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
বিদ্যুৎ, জ্বালানি ও খনিজ সম্পদ মন্ত্রণালয়
জ্বালানি ও খনিজ সম্পদ বিভাগ
পরিকল্পনা-২ অধিশাখা
www.emrd.gov.bd



নথি নম্বর-২৮.০০.০০০০.০৩৮.১৪.০৬৭.২০/১৯৪

তারিখ: ১৮ অগ্রহায়ণ ১৪২৭
০৩ ডিসেম্বর ২০২০

প্রেরক: মো: হাসানুজ্জামান
উপসচিব

প্রাপক: চেয়ারম্যান
পেট্রোবাংলা, পেট্রোসেন্টার,
৩ কাওরান বাজার, ঢাকা।

বিষয়: “সিলেট গ্যাস ফিল্ডস লিমিটেড (এসজিএফএল)-এর বিয়ানীবাজার ফিল্ডে ৩-ডি সাইসমিক জরিপ” শীর্ষক অনুমোদিত প্রকল্পের প্রশাসনিক আদেশ।

আমি, নিম্নস্বাক্ষরকারী, নির্দেশক্রমে পেট্রোবাংলার আওতাধীন সিলেট গ্যাস ফিল্ডস লিমিটেড (এসজিএফএল) কর্তৃক নিজস্ব অর্থায়নে বাস্তবায়িতব্য “সিলেট গ্যাস ফিল্ডস লিমিটেড (এসজিএফএল)-এর বিয়ানীবাজার ফিল্ডে ৩-ডি সাইসমিক জরিপ” শীর্ষক অনুমোদিত প্রকল্পের প্রশাসনিক অনুমোদন জ্ঞাপন করছি। প্রকল্পটির অনুমোদিত মোট ব্যয় ৪৬.৩৩ (ছেচলিশ দশমিক তিন তিন) কোটি টাকা। প্রকল্পটি কোম্পানির সম্পূর্ণ নিজস্ব অর্থায়নে বাস্তবায়িত হবে।

২। প্রকল্পটির অনুমোদিত বাস্তবায়ন মেয়াদকাল অক্টোবর, ২০২০ থেকে ডিসেম্বর, ২০২২।

৩। অনুমোদিত প্রকল্পের আইটেমসমূহ ও আইটেমওয়ারী ব্যয় নিম্নরূপ:

(লক্ষ টাকায়)

অর্থ: কোড	অঙ্গের বিবরণ	সংখ্যা/পরিমাণ	প্রাকল্পিত ব্যয়	
			কোম্পানির নিজস্ব তহবিল (বৈ: মুদ্রা)	মোট (বৈ: মুদ্রা)
১	২	৩	৪	৫
(ক) রাজস্ব ব্যয় :				
সরবরাহ ও সেবা				
৩১১১০৩২	সম্মানি ভাতা	থোক	৩.০০	৩.০০
৩২১১০৩	ক্ষতিপূরণ	১টি প্যাকেজ	২০.০০	২০.০০
৩২১১০৬	আপ্যায়ন	১ থোক	৩.০০	৩.০০
৩২১১০৭	(ক) ডাবল কেবিন পিক-আপ ভাড়া	১টি	৩০.০০	৩০.০০
	(খ) মাইক্রোবাস ভাড়া	১টি	২৫.০০	২৫.০০
৩২১১১১	ওয়ার্কশপ, সেমিনার, কনফারেন্স ইত্যাদি	১০টি	৫.০০	৫.০০
৩২১১১৬	কুরিয়ার	৩০০টি	০.৩০	০.৩০
৩২১১১৭	ইন্টারনেট বিল	২৫টি	০.৪০	০.৪০
৩২১১১৯	পোস্টাল	৩০০টি	০.৩০	০.৩০
৩২১১২৫	প্রচার ও বিজ্ঞাপন	৪টি	২.০০	২.০০
৩২১১২৭	বই, জার্নাল, ম্যাপ, স্যাটেলাইট ইমেজ ইত্যাদি	৪৫টি	১.৫০	১.৫০
৩২১১০২	পরিবেশগত ছাড়পত্রের ফি	১টি প্যাকেজ	০.৮০	০.৮০
৩২২১১০৮	ব্যাংক চার্জেস	০.০৮৫%	১২.০০	১২.০০
৩২৫৫১০৫	অফিস স্টেশনারি	১টি প্যাকেজ	৩.০০	৩.০০
৩২৫৬১০১	ব্যক্তিগত নিরাপত্তা সামগ্রি (পিপিই)	১টি প্যাকেজ	১.৫০	১.৫০
৩২৫৭১০১	(ক) সার্ভিস প্রোভাইডার নিয়োগ (১৯১ বর্গ কি.মি. এলাকায় সাইসমিক ডাটা এ্যাকুইজিশন, প্রসেসিং ও ইন্টারপ্রিটেশনসহ প্রতিবেদন প্রণয়ন)	১টি প্যাকেজ	৩৬০০.০০ (৩৬০০.০০)	৩৬০০.০০ (৩৬০০.০০)
	(খ) স্থানীয় পরামর্শক সেবা	১৮ জন-মাস	৩৬.০০	৩৬.০০

অর্থ কোড	অঙ্গের বিবরণ	সংখ্যা/পরিমাণ	প্রাক্কলিত ব্যয়	
			কোম্পানির নিজস্ব তহবিল (বৈ: মুদ্রা)	মোট (বৈ: মুদ্রা)
১	২	৩	৪	৫
৩২৫৭১০৪	আইইই/ইআইএ/ইএমপি স্টাডি	১টি প্যাকেজ	৫.০০	৫.০০
৩২৫৮১০২	অফিস আসবাবপত্র মেরামত	১৩টি	০.৪০	০.৪০
৩২৫৮১০৩	কম্পিউটার মেরামত	৮টি	০.৪০	০.৪০
৩৮২১১০৪	ভ্যাট	১৫%	৫৪৫.৪০	৫৪৫.৪০
৩৮২১১২৫	এআইটি	৫.২৫%	১৯১.০০	১৯১.০০
উপ-মোট (রাজস্ব) :			৪৪৮৬.০০ (৩৬০০.০০)	৪৪৮৬.০০ (৩৬০০.০০)
(খ) মূলধন ব্যয় :				
সম্পদ সংগ্রহ/ক্রয়				
৪১১১২০২	কম্পিউটার এবং আনুষঙ্গিক (ডেস্কটপ-২টি, লেজার প্রিন্টার-২টি, ল্যাপটপ-১টি, স্ক্যানার-১টি, ইউপিএস-২টি)	৮ টি	৩.০০	৩.০০
৪১১২৩১০	ফটোকপিয়ার (হেভি ডিউটি)	১টি	৫.০০	৫.০০
৪১১২৩১৪	অফিস আসবাবপত্র	১৩ টি	৪.০০	৪.০০
উপ-মোট (মূলধন) :			১২.০০	১২.০০
গ) ফিজিক্যাল কনটিনজেন্সি	১%		৪৫.০০ (৩৬.০০)	৪৫.০০ (৩৬.০০)
ঘ) প্রাইস কনটিনজেন্সি	২%		৯০.০০ (৭২.০০)	৯০.০০ (৭২.০০)
সর্বমোট (ক+খ+গ+ঘ):			৪৬৩৩.০০ (৩৭০৮.০০)	৪৬৩৩.০০ (৩৭০৮.০০)

৪। প্রত্যেক পাতায় স্বাক্ষরিত অনুমোদিত ডিপিপি'র এক প্রস্থ এতদসঙ্গে পরবর্তী ব্যবস্থা গ্রহণের জন্য সংযোজিত হলো।

স্বাক্ষর :-
(মো: হাসানুজ্জামান)
উপসচিব
ফোন: ৯৫৫৮১১৯
Email: ripon.hasan@gmail.com

২৮.০০.০০০০.০৩৮.১৪.০৬৭.২০-১৯৪

তারিখ: ১৮ অগ্রহায়ণ ১৪২৭
০৩ ডিসেম্বর ২০১০

সদস্য অবগতি ও প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য অনুলিপি (জ্যেষ্ঠতার ক্রমানুসারে নয়):

১. সিনিয়র সচিব, অর্থ বিভাগ, অর্থ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- সচিব, বাস্তবায়ন পরিদপ্তর ও মূল্যায়ন বিভাগ (আইএমইডি), শের-ই-বাংলা নগর, ঢাকা।
- সদস্য, শিল্প ও শক্তি বিভাগ, পরিকল্পনা কমিশন, শের-ই-বাংলা নগর, ঢাকা।
- সিনিয়র সচিব মহোদয়ের একান্ত সচিব, জ্বালানি ও খনিজ সম্পদ বিভাগ।
- ব্যবস্থাপনা পরিচালক, এসজিএফএল, লিয়াজৌ অফিস, পেট্রোসেন্টার, ৩ কাওরান বাজার, ঢাকা।
- অতিরিক্ত সচিব (পরিকল্পনা) মহোদয়ের ব্যক্তিগত কর্মকর্তা, জ্বালানি ও খনিজ সম্পদ বিভাগ।
- যুগ্মসচিব (পরিকল্পনা) মহোদয়ের ব্যক্তিগত কর্মকর্তা, জ্বালানি ও খনিজ সম্পদ বিভাগ।
- সংশ্লিষ্ট নথি/গার্ড ফাইল।


(মো: হাসানুজ্জামান)
উপসচিব

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
বিদ্যুৎ, জ্বালানি ও খনিজ সম্পদ মন্ত্রণালয়
জ্বালানি ও খনিজ সম্পদ বিভাগ
পরিকল্পনা-২ অধিশাখা
www.emrd.gov.bd

নথি নম্বর-২৮.০০.০০০০.০৩৮.১৪.০৬৭.২০/৯৬

তারিখ: ১২ পৌষ ১৪৩০ বঙ্গাব্দ
২৭ ডিসেম্বর ২০২৩ খ্রি:

প্রেরক: মো: হাসানুজ্জামান
উপসচিব

প্রাপক: চেয়ারম্যান
পেট্রোবাংলা, পেট্রোসেন্টার,
৩ কাওরান বাজার, ঢাকা।

বিষয়: “সিলেট গ্যাস ফিল্ডস লিমিটেড (এসজিএফএল)-এর বিয়ানীবাজার ফিল্ডে ৩-ডি সাইসমিক জরিপ (১ম সংশোধিত)”
শীর্ষক অনুমোদিত প্রকল্পের প্রশাসনিক আদেশ।

আমি, নিম্নস্বাক্ষরকারী, নির্দেশক্রমে পেট্রোবাংলার আওতাধীন সিলেট গ্যাস ফিল্ডস লিমিটেড (এসজিএফএল) কর্তৃক নিজস্ব অর্থায়নে বাস্তবায়নধীন “সিলেট গ্যাস ফিল্ডস লিমিটেড (এসজিএফএল)-এর বিয়ানীবাজার ফিল্ডে ৩-ডি সাইসমিক জরিপ (১ম সংশোধিত)” শীর্ষক অনুমোদিত প্রকল্পের প্রশাসনিক অনুমোদন জ্ঞাপন করছি। প্রকল্পটির অনুমোদিত মোট ব্যয় ৫৮.৬০ (আটাত্ত দশমিক ছয় শূন্য) কোটি টাকা। প্রকল্পটি কোম্পানির সম্পূর্ণ নিজস্ব অর্থায়নে বাস্তবায়িত হবে।

২। প্রকল্পটির অনুমোদিত বাস্তবায়ন মেয়াদকাল অক্টোবর, ২০২০ থেকে জুন, ২০২৪।

৩। অনুমোদিত প্রকল্পের আইটেমসমূহ ও আইটেমওয়ারী ব্যয় নিম্নরূপ:

(লক্ষ টাকায়)

অর্থ: কোড	অঙ্কের বিবরণ	সংখ্যা/পরিমাণ	প্রাক্কলিত ব্যয়	
			কোম্পানির নিজস্ব তহবিল (বৈ: মুদ্রা)	মোট (বৈ: মুদ্রা)
১	২	৩	৪	৫
(ক) রাজস্ব ব্যয়:				
সরবরাহ ও সেবা				
৩১১১৩৩২	সম্মানি ভাতা	থোক	৬.৩৩	৬.৩৩
৩২১১১০৬	আপ্যায়ন	থোক	৪.৬৪	৪.৬৪
৩২১১১০৭	মাইক্রোবাস ভাড়া	১টি	২৪.৩৯	২৪.৩৯
৩২১১১১১	সেমিনার/কনফারেন্স ব্যয়	১২টি	২.৮৫	২.৮৫
৩২১১১১৬	কুরিয়ার	৯টি	০.১০	০.১০
৩২১১১১৯	ডাক (পোস্টাল)	৪০টি	০.০৪	০.০৪
৩২১১১২৫	প্রচার ও বিজ্ঞাপন	৩টি	০.৯৬	০.৯৬
৩২১১১২৭	বইপত্র ও সাময়িকী	১৩টি	০.২০	০.২০
৩২২১১০২	লাইসেন্স ফি (পরিবেশগত ছাড়পত্রের ফি)	১টি প্যাকেজ	০.৮০	০.৮০
৩২২১১০৮	ব্যাংক চার্জস	০.৪%	৮৫.৯০	৮৫.৯০
৩২৫৫১০৫	অন্যান্য মনিহারি	১টি প্যাকেজ	৩.১৯	৩.১৯
৩২৫৬১০১	সাধারণ সরবরাহ (ব্যক্তিগত নিরাপত্তা সামগ্রি পিপিই)	১টি প্যাকেজ	১.০০	১.০০
৩২৫৭১০১	(ক) সাইসমিক সার্ভিস প্রোভাইডার নিয়োগ (১৯১ বর্গ কি.মি. এলাকায় সাইসমিক ডাটা এ্যাকুইজিশন, প্রসেসিং ও ইন্টারপ্রিটেশনসহ প্রতিবেদন প্রণয়ন)	১টি প্যাকেজ	৪৬২৮.০০ (৪৬২৮.০০)	৪৬২৮.০০ (৪৬২৮.০০)
	(খ) স্থানীয় পরামর্শক সেবা	১৬ জন-মাস	৩২.০০	৩২.০০
৩২৫৭১০৪	জরিপ (আইইই/ইআইএ/ইএমপি স্টাডি)	১টি প্যাকেজ	২.০০	২.০০

F:\Self Finance.doc\SGFL 3D Seismic survey at Baramboor Field under SGFL\Administrative Order Unicode.doc

অর্থ: কোড	অঙ্গের বিবরণ	সংখ্যা/পরিমাণ	প্রাক্কলিত ব্যয়	
			কোম্পানির নিজস্ব তহবিল (বৈ: মুদ্রা)	মোট (বৈ: মুদ্রা)
১	২	৩	৪	৫
৩২৫৮১০৩	কম্পিউটার (মেরামত)	৮টি	০.৪০	০.৪০
৩৮২১১০৪	মূল্য সংযোজন কর	১৫%	৬৯৯.০০	৬৯৯.০০
৩৮২১১২৫	আয়কর	৫.২৫% ও ১০%	২৪৬.২০	২৪৬.২০
উপ-মোট (রাজস্ব):			৫৭৩৮.০০	৫৭৩৮.০০
(খ) মূলধন ব্যয়:				
সম্পদ সংগ্রহ/ক্রয়				
৪১১২২০২	কম্পিউটার এবং আনুষঙ্গিক	৮ টি	৩.০০	৩.০০
৪১১২৩১০	অফিস সরঞ্জামাদি (ফটোকপিয়ার)	১টি	২.০০	২.০০
৪১১২৩১৪	আসবাবপত্র	১৩ টি	৪.০০	৪.০০
উপ-মোট (মূলধন):			৯.০০	৯.০০
ঘ) প্রাইস কনটিনজেন্সি		২%	১১৩.০০	১১৩.০০
সর্বমোট (ক+খ+ঘ):			৫৮৬০.০০	৫৮৬০.০০

৪। প্রত্যেক পাতায় স্বাক্ষরিত অনুমোদিত ১ম সংশোধিত ডিপিপি'র এক প্রস্থ এতদসঙ্গে পরবর্তী ব্যবস্থা গ্রহণের জন্য সংযোজিত হলো।

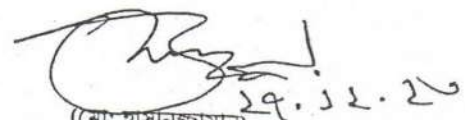

 (মো: হাসনুজ্জামান)
 উপসচিব
 ফোন: ২২৩৩৯০৬৭১

২৮.০০.০০০০.০৩৮.১৪.০৬৭.২০/৯৬

তারিখ: ১২ পৌষ ১৪৩০ বঙ্গাব্দ
২৭ ডিসেম্বর ২০২৩ খ্রি:

সদয় অবগতি ও প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য অনুলিপি (জ্যেষ্ঠতার ক্রমানুসারে নয়):

- ১। সচিব, অর্থ বিভাগ, অর্থ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা (দৃ.আ. মহাপরিচালক, মনিটরিং সেল)।
- ২। সদস্য, শিল্প ও শক্তি বিভাগ, পরিকল্পনা কমিশন, শের-ই-বাংলা নগর, ঢাকা।
- ৩। সচিব, বাস্তবায়ন, পরিবীক্ষণ ও মূল্যায়ন বিভাগ, শের-ই-বাংলা নগর, ঢাকা।
- ৪। অতিরিক্ত সচিব (পরিকল্পনা), ছালানি ও খনিজ সম্পদ বিভাগ।
- ৫। যুগ্মসচিব (পরিকল্পনা), ছালানি ও খনিজ সম্পদ বিভাগ।
- ৬। মাননীয় প্রতিমন্ত্রীর একান্ত সচিব, বিদ্যুৎ, ছালানি ও খনিজ সম্পদ মন্ত্রণালয়।
- ৭। সচিব এর একান্ত সচিব, ছালানি ও খনিজ সম্পদ বিভাগ।
- ৮। ব্যবস্থাপনা পরিচালক, এসজিএফএল, লিয়াজৌ অফিস, পেট্রোসেন্টার, ৩ কাওরান বাজার, ঢাকা।
- ৯। প্রকল্প পরিচালক, “সিলেট গ্যাস ফিল্ডস লিমিটেড (এসজিএফএল)-এর বিয়ানীবাজার ফিল্ডে ৩-ডি সাইসমিক জরিপ (১ম সংশোধিত)” শীর্ষক প্রকল্প।
- ১০। সংশ্লিষ্ট নথি/গার্ড ফাইল।


 (মো: হাসনুজ্জামান)
 উপসচিব

Annexure - B
Technical Findings

[Signature]

Technical Findings

The main objective of the project is to delineate different hydrocarbon reservoirs and identify structural and stratigraphic prospects through 3D seismic data acquisition, processing, interpretation, modeling and reserve estimations for Beanibazar Gas field.

The final results of this project will provide reports and data, which will play a significant role in decision-making in future gas exploration/evaluation/development activities. Based on the results obtained from the aforementioned 3D seismic survey, there is potential for good results in subsequent well drilling and workover activities.

Structure Character:

Synthetic seismograms have good consistence with seismic reflections. 19 horizons(12 drilled) have been interpreted in PSTM and PSDM data. The anticline structure in target layers is clear. And structural morphologies are similar in target layers. E-W orientation is slightly asymmetrical and a deep plunging northern flank.

Structure Element

No.	Horizon	High point(m, TVDSS)	Area(km ²)	Relief(m)
1	Top UBB	-2800	35.5	220
2	Top UBBS2	-3120	51.5	300
3	Top MBB (UGS)	-3200	50.6	300
		3200	7.5(Gas bearing area)	50
4	Top LGS	-3420	57.9	340
		3420	9.5(Gas bearing area)	46
5	Top LBB	-3540	57.3	340
6	Top UBH	-3740	68.6	500
7	Top MBH	-4360	62.5	480
8	Top LBH	-5360	50.2	520

Reservoir Characteristic:

Middle Bokabil- UGS and LGS sands:

UGS is gas reservoir with bottom water, GWC is -3250m TVDSS. Gas bearing area is about 7.5 km². LGS is gas reservoir with edge water type. GDT is -3437.5m, PGWC is -3466m TVDSS (Obtained by inverse calculation of saturation height model). Gas bearing area is about 9.5 km². The thickness of gas sand is beyond 30m in UGS. And it is thinner and beyond 9.2m in LGS. Sandstone with gas bearing is stronger amplitude and lower impedance.

Middle Bokabil- UGS and LGS Sands-GIIP:

GIIP is estimated to be 179.798 and 56.072 BCF for UGS and LGS respectively

Zone	Bulk volume [10 ⁶ sm ³]	Net volume [10 ⁶ sm ³]	Pore volume [10 ⁶ sm ³]	HCPV gas [10 ⁶ sm ³]	GIIP [10 ⁶ sm ³]	GIIP (Bcf)
UGS	170	129	25	20	5092	179.798
LGS	110	93	12	6	1588	56.072

Potential Analysis-Petroleum System

Eocene - Oligocene forms three sets source rock (Kopili shale, Jenam shale & Renji shale). Miocene forms good reservoir-cap assemblages (Bhuban,Bokabil).UMS forms regional cap rocks.Bokabil (Main Reservoir): consists of 5 good sets of cap-reservoir assemblages (SQ3-1~SQ3-4). UGS and LGS production layers have been confirmed. Bhuban (Potential Reservoir): consists of grey shales interbedded with sandstone in SQ2. Good cap-reservoir assemblage are developed. Regionally, gas generation and expulsion began in Oligocene - Pliocene times. Beanibazar structure was formed in Pliocene or later. The faults are the effective vertical pathway for gas migration from the source rock to reservoirs.With fault development, hydrocarbon migration and accumulation is more easily for deep formation (Deeper than MBB).

Resource Estimation

Totally 8 prospects are identified: stratigraphic or stratigraphic-structural trap.

NO.	Prospects	Area (km ²)	Average Sg (Fraction)	Average Sw (Fraction)	Bgi	Resource (BCF)	Remark
1	Prospect 1 (MBB)	15.22	0.61	0.39	0.005	103.34	High Estimation
2	Prospect 2 (MBB)	6.12	0.60	0.40	0.005	39.78	
3	Prospect 3 (LBB)	8.8	0.65	0.35	0.0045	170.29	
4	Prospect 4 (LBB)	5.2	0.63	0.36	0.0045	43.03	
5	Prospect 5 (LBB)	14.79	0.67	0.33	0.0045	245.83	
6	Prospect 6 (UBH)	37.49	0.75	0.25	0.0042	517.23	
7	Prospect 7 (UBH)	12.2	0.75	0.25	0.0042	136.41	
8	Prospect 8 (UBH)	12.1	0.75	0.25	0.0042	77.62	
Total						1333.53	
1	Prospect 1 (MBB)	11.47	0.65	0.39	0.005	72.78	Best Estimation
2	Prospect 2 (MBB)	2.58	0.63	0.40	0.005	20.21	
3	Prospect 3 (LBB)	8.09	0.65	0.35	0.0045	135.84	
4	Prospect 4 (LBB)	4.26	0.63	0.36	0.0045	37.34	
5	Prospect 5 (LBB)	7.42	0.67	0.33	0.0045	111.36	
6	Prospect 6 (UBH)	22.3	0.75	0.25	0.0042	311.40	

7	Prospect 7 (UBH)	10.74	0.75	0.25	0.0042	121.82	
8	Prospect 8 (UBH)	9.28	0.75	0.25	0.0042	56.03	
Total						866.79	
1	Prospect 1 (MBB)	2.5	0.65	0.39	0.005	15.44	Low Estimation
2	Prospect 2 (MBB)	1.03	0.63	0.40	0.005	9.47	
3	Prospect 3 (LBB)	1.47	0.65	0.35	0.0045	8.23	
4	Prospect 4 (LBB)	1.73	0.63	0.36	0.0045	12.22	
5	Prospect 5 (LBB)	2.44	0.67	0.33	0.0045	32.68	
6	Prospect 6 (UBH)	2.19	0.75	0.25	0.0042	17.91	
7	Prospect 7 (UBH)	2.3	0.75	0.25	0.0042	18.41	
8	Prospect 8 (UBH)	2.91	0.75	0.25	0.0042	18.55	
Total						132.91	

Resource Estimation-Result

The total remaining GIP is 123.44 BCF; the total resource is predicted as 866.79 BCF. Previous Estimation : GIIP- UGS-105.4 BCF, LGS-31.2 BCF, Total- 136.6 BCF (Source: HCU-2010)

Predicted Remaining Resource for Beanibazar Gas Field

	Production Layer	GIIP, BCF	Cum Prod, January, 2024, BCF	Remaining GIP, BCF
Discovered Reservoir	UGS	179.798	77.06	102.738
	LGS	56.072	35.37	20.702
	Total	235.870	112.43	123.44
Exploration Prospect				Best Estimate Resource (BCF)
Potential Prospect	Prospect-1 (MBB)			72.78
	Prospect-2 (MBB)			20.21
	Prospect-3 (LBB)			135.84
	Prospect-4 (LBB)			37.34
	Prospect-5 (LBB)			111.36
	Prospect-6 (UBH)			311.40
	Prospect-7 (UBH)			121.82
	Prospect-8 (UBH)			56.03
Total				866.79

Well Proposal

There are 3 exploration wells and 1 exploration/ appraisal well proposals which focus on MBB(LGS), LBB and UBH formations.

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NO.	Well name	Well Type /Direction	Targets	Coordinate				Total Depth (m. TVDSS)	Volume (BCF, Best estimate)		COS		Risky Volume (BCF, Best estimate)	
				GCS: BTM		GCS: WGS84			Static	Dynamic	Static	Dynamic	Static	Dynamic
				E	N	Longitude	Latitude							
1	BB-3X	Exploration & Appraisal /Vertical	Prospect 3 (LBB) Prospect 4 (LBB) Prospect 6 (UBH) Prospect 7 (UBH) Prospect 8 (UBH)	719316	2744283	92°10'00.37"	24°48'01.27"	-4200	Total: 662.44 Prospect 3 (135.84) Prospect 4 (37.34) Prospect 6 (311.4) Prospect 7 (121.82) Prospect 8 (56.03)	Total: 640.44 Prospect 3 (135.78) Prospect 4 (36.04) Prospect 6 (296.15) Prospect 7 (117.31) Prospect 8 (55.16)	Prospect 3 (0.52) Prospect 4 (0.47) Prospect 6 (0.32) Prospect 7 (0.25) Prospect 8 (0.21)	/	Total: 230.06 Prospect 3 (70.64) Prospect 4 (17.55) Prospect 6 (99.65) Prospect 7 (30.45) Prospect 8 (11.77)	/
2	BB-4X	Exploration/ Vertical	Prospect 1(MBB)	717473.1	2741152.4	92°08'53.02"	24°46'20.50"	-3800	72.78	71.19	0.32	/	23.29	/
3	BB-5X	Exploration/ Vertical	Prospect 2(MBB)	720590.3	2739653.1	92°10'43.10"	24°45'30.18"	-3960	39.78 (High case)	38.58 (High case)	0.36	/	14.32	/
4	BB-6X	Exploration/ Vertical	Prospect 5 (LBB)	716830.5	2746525	92°08'33.16"	24°49'15.38"	-4000	111.36	116.62	0.28	/	31.18	/

Comments: Dynamic model is run on the basis of the best case of volume estimation, however, BB-5X is located closely to the gas water contact of the best case, so high case is used for BB-5X forecasting.

Field Development Plan- UGS and LGS sands

Production wells: BB-1, BB-2 develop UGS sand;

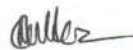
Workover: BB-2 of squeeze cement from 3300 to 3310m to reduce water rate.

Infill well: None;

Gas Rate: 7.5 MMSCFD for BB-1 and 6.5 MMSCFD for BB-2.

Field Development Plan- Prospects

Simulation is run for 20 years, from January 2025 to December-2044. The gas rate of BB-3X is set to be 10 and 15 MMSCFD for UBH and LBB respectively. BB-4X, BB-5X and BB-6X is set to be 10 MMSCFD for each.



Annexure – C

Other Documents

Donde



গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
বিদ্যুৎ, জ্বালানি ও খনিজ সম্পদ মন্ত্রণালয়
জ্বালানি ও খনিজ সম্পদ বিভাগ
পরিকল্পনা-২ অধিশাখা
www.emrd.gov.bd



নথি নম্বর-২৮.০০.০০০০.০৩৮.১৪.০৬৭.২০/ ১৬৪

তারিখ: ১৮.০৭.২০২২

বিষয়: “সিলেট গ্যাস ফিল্ডস লিমিটেড (এসজিএফএল)-এর বিয়ানীবাজার ফিল্ডে ৩-ডি সাইসমিক জরিপ” শীর্ষক প্রকল্পের ব্যয় বৃদ্ধি ব্যতিরেকে বাস্তবায়ন মেয়াদ ১ (এক) বছর বৃদ্ধির প্রশাসনিক অনুমোদন।

সূত্র: পেট্রোবাংলা’র স্মারক ২৮.০২.০০০০.০৬১.০২.৩০৪.১৯.৩৪, তারিখ: ২০.০৪.২০২২।

উপর্যুক্ত বিষয় ও সূত্রের পরিপ্রেক্ষিতে জানানো যাচ্ছে যে, পেট্রোবাংলার আওতাধীন সিলেট গ্যাস ফিল্ডস লিমিটেড (এসজিএফএল) কর্তৃক নিজস্ব অর্থায়নে বাস্তবায়নাধীন “সিলেট গ্যাস ফিল্ডস লিমিটেড (এসজিএফএল)-এর বিয়ানীবাজার ফিল্ডে ৩-ডি সাইসমিক জরিপ” শীর্ষক প্রকল্পের ব্যয় বৃদ্ধি ব্যতিরেকে বাস্তবায়ন মেয়াদকাল অক্টোবর, ২০২০ হতে ডিসেম্বর, ২০২২ এর পরিবর্তে অক্টোবর, ২০২০ হতে ডিসেম্বর, ২০২৩ পর্যন্ত অর্থাৎ ০১ (এক) বছর নির্দেশক্রমে বৃদ্ধি করা হলো।

০২। অনুমোদিত ডিপিপি’র অংগভিত্তিক ব্যয়ের মধ্যে সীমাবদ্ধ রেখে প্রকল্পের সকল কাজ সম্পন্ন করতে হবে।


(মোঃ হাসানুজ্জামান)
উপসচিব
ফোন: ২২৩৩৯০৬৭১

চেয়ারম্যান
পেট্রোবাংলা
পেট্রোসেন্টার, ৩ কাওরান বাজার, ঢাকা।

বিতরণ:

- ১। সিনিয়র সচিব, অর্থ বিভাগ, বাংলাদেশ সচিবালয়, ঢাকা (দৃ.আ. মহাপরিচালক, মনিটরিং সেল)।
- ২। সচিব, বাস্তবায়ন পরিবীক্ষণ ও মূল্যায়ন বিভাগ (আইএমইডি), শের-ই-বাংলা নগর, ঢাকা।
- ৩। সদস্য, শিল্প ও শক্তি বিভাগ, পরিকল্পনা কমিশন, শের-ই-বাংলা নগর, ঢাকা।
- ৪। অতিরিক্ত সচিব (উন্নয়ন), জ্বালানি ও খনিজ সম্পদ বিভাগ।
- ৫। অতিরিক্ত সচিব (পরিকল্পনা), জ্বালানি ও খনিজ সম্পদ বিভাগ।
- ৬। যুগ্মসচিব (পরিকল্পনা), জ্বালানি ও খনিজ সম্পদ বিভাগ।
- ৭। সিনিয়র সচিব এর একান্ত সচিব, জ্বালানি ও খনিজ সম্পদ বিভাগ।
- ৮। উপসচিব (বাজেট অধিশাখা), জ্বালানি ও খনিজ সম্পদ বিভাগ।
- ৯। চিফ একাউন্টস এন্ড ফিন্যান্স অফিসার, জ্বালানি ও খনিজ সম্পদ বিভাগ, সেগুনবাগিচা, ঢাকা।
- ১০। ব্যবস্থাপনা পরিচালক, এসজিএফএল, লিয়াজৌ অফিস, পেট্রোসেন্টার, ৩ কাওরান বাজার, ঢাকা।
- ১১। প্রকল্প পরিচালক, সিলেট গ্যাস ফিল্ডস লিমিটেড (এসজিএফএল)-এর বিয়ানীবাজার ফিল্ডে ৩-ডি সাইসমিক জরিপ শীর্ষক প্রকল্প, এসজিএফএল, লিয়াজৌ অফিস, পেট্রোসেন্টার, ৩ কাওরান বাজার, ঢাকা।
- ১২। সংশ্লিষ্ট নথি/গার্ড ফাইল।