



ANNEXURE-IX-F

OIL & GAS DEVELOPMENT COMPANY LIMITED

NASHPA COMPRESSION FACILITY PROJECT

**SCHEDULE OF RATES
FOR
ADDITIONAL CIVIL WORKS (IF ANY)**



C O N T E N T S

1. DESCRIPTION OF ITEMS.
2. SCHEDULE OF RATES.



OIL & GAS DEVELOPMENT COMPANY LIMITED

NASHPA COMPRESSION FACILITY PROJECT

**DESCRIPTION OF ITEMS
FOR
ADDITIONAL CIVIL WORKS (IF ANY)**

C O N T E N T S

BOQ Item No.	Description	Page No.
1	Cleaning, Grading and Levelling as per BOQ Item No. 1	6
2	Excavation as per BOQ Item No. 2	6
3	10MPa Concrete as per BOQ Item No. 3	6
4	21MPa Concrete as per BOQ Item No. 4	6
5	28MPa Concrete as per BOQ Item No. 5	6
6	Steel Reinforcement as per BOQ Item No. 6	6
7	Steel Embedded Items as per BOQ Item No. 7	7
	i. Angle	7
	ii. Channel	7
8	Coarse Sand Filling as per BOQ Item No. 8	7
9	PVC Pipe Sleeves as per BOQ Item No. 9	7
10a	Earth Filling From Outside Source as per BOQ Item No. 10a	7
10b	Earth Filling Using Surplus Excavated Material as per BOQ Item No. 10b	7
11	12MPa Concrete as per BOQ Item No. 11	8
12	12MPa Concrete in Pavement / floor as per BOQ Item No. 12	8
13	Stone Soling as per BOQ Item No. 13	8
14	Storm Water Drains as per BOQ Item No. 14	8
15	RCC Catch Basin as per BOQ Item No. 15	8
16	RCC Manholes as per BOQ Item No. 16	9
17	RCC Valve Pit as per BOQ Item No. 17	9
18	Gravel Filling as per BOQ Item No. 18	9
19	Carbon Steel Pipe Sleeves as per BOQ Item No. 19	9
	i. 100 mm (4" Ø)	9
	ii. 150 mm (6" Ø)	9
	iii. 200 mm (8" Ø)	9

20	Dismantling / Removal of Miscellaneous RCC / PCC Structures as per BOQ Item No. 20	9
21	Dismantling / Removal of Existing Concrete Pavement as per BOQ Item No. 21	10

1. CLEANING, GRADING & LEVELLING

Cleaning, Grading and Leveling of site, including cut and fill (if required), providing slopes to match elevation difference between finished ground levels, removal of debris, trees, shrubs and any other undesired material from site. Complete as per drawings, specifications and approval of OGDCL / Engineering Consultant.

2. EXCAVATION

Excavation for foundation / trenches in all kinds of soils, dry or wet, hard or soft, upto required depth as shown on drawings. Including compaction of excavation bottom by approved mechanical plate, compactor, backfilling (in layers), leveling, dressing, watering and disposal of surplus excavated material to lead as directed. Complete as per drawing, specifications and approval of OGDCL/ Engineering Consultant.

3. 10MPa CONCRETE

Providing and laying plain cement concrete having minimum cylinder crushing strength (at 28 days) of 10MPa, for blinding or under floors where required using approved quality aggregate and sand including all formwork, roding, vibrating, leveling, compacting and curing etc. Complete in all respect as per drawings, specifications and approval of OGDCL / Engineering Consultant.

4. 21MPa CONCRETE

Providing and laying R.C.C having minium cylinder crushing strength (at 28 days) of 21MPa, in sub structure, using approved quality aggregate and sand including steel formwork and its removal, scaffolding, vibrating, leveling, consolidating and curing etc. Complete in all respect as per drawings, specifications and approval of OGDCL / Engineering Consultant.

5. 28MPa CONCRETE

Providing and laying R.C.C having minimum cylinder crushing strength (at 28 days) of 28MPa, in super structure, using approved quality aggregate and sand including steel formwork and its removal, scaffolding, vibrating, leveling, consolidating and curing etc. Complete in all respect as per drawings, specifications and approval of OGDCL / Engineering Consultant.

6. STEEL REINFORCEMENT

Providing, placing and fixing in position Steel Reinforcement having yield strength not less than 420MPa, including straightening, cutting, bending, placing, wastage, overlap and tying with approved quality Binding Wire and all Spacer and Steel Chairs wherever required etc. Complete as per drawing, specifications and approval of OGDCL / Engineering Consultant.

7. STEEL EMBEDDED ITEMS

Providing, fabricating and fixing Steel Embedded Parts and Anchor Bolts (with Nuts) in concrete including M.S Anchor Lugs Welded with M.S. Plate, Channel and Angle etc. Complete as per drawing, specifications and approval of OGDCL / Engineering Consultant.

8. COARSE SAND FILLING

Providing and laying Coarse Sand of approved quality at any location in layers not exceeding 150 mm (6") thick including compaction of layer with approved mechanical compactor to achieve 95% of maximum dry density at optimum moisture content. Complete as per drawing, specifications and approval of OGDCL / Engineering Consultant.

9. PVC PIPE SLEEVES

Providing and fixing in position heavy duty PVC Pipe Sleeves of diameter and length as listed below. Including removal of sleeves after concreting and filling pockets with approved grout after final inspection of Anchor Bolt position. Complete as per drawing, specifications and approval of OGDCL / Engineering Consultant.

- i. 50 mm Ø x 150 mm long (2" Ø x 6" long)
- ii. 100 mm Ø x 150 mm long (4" Ø x 6" long)
- iii. 150 mm Ø x 300 mm long (6" Ø x 12" long)

10.a EARTH FILLING FROM OUTSIDE SOURCE

Filling earth obtained from outside approved sources and filling the same in foundation, plinth, under floor and wherever specified / required to maintain the required FGL. Including breaking clods, dressing, watering and consolidating by ramming in layers not exceeding 150 mm (6") depth and to obtain 95% compaction modified AASHTO density including all lead and lift. Complete as per drawings, specifications and approval of OGDCL / Engineering Consultant.

10.b EARTH FILLING USING SURPLUS EXCAVATED MATERIAL

Filling earth obtained from surplus excavated material within plant boundary and filling the same in plinth, under floor and wherever specified / required to maintain the required FGL. Including breaking clods, dressing, watering and consolidating by ramming in layers not exceeding 150 mm (6") depth and to obtain 95% compaction modified AASHTO density including all lead and lift. Complete as per drawings, specifications and approval of OGDCL / Engineering Consultant.

11. 12MPa CONCRETE

Providing and laying plain cement concrete having minimum cylinder crushing strength (at 28 days) of 12MPa, in floors, in foundations, under walls etc., using approved quality aggregated and sand including formwork, roding, vibrating, leveling, compacting and curing etc. Complete in all respect as per drawings, specifications and approval of OGDCL / Engineering Consultant.

12. 17 MPa CONCRETE IN PAVEMENT / FLOOR

Providing and laying in Panels plain cement concrete having minimum cylinder crushing strength (at 28 days) of 17MPa, in Pavement / Floor, using approved sand and aggregate including formwork, compaction, leveling, vibration, steel trowel finishing, curing and filling joints with bitumen sand filler, etc. Complete as per drawing, specifications and approval of OGDCL / Engineering Consultant.

- i. 100 mm thick (4" thick)
- ii. 150 mm thick (6" thick)

13. STONE SOLING

Providing and laying Soling Stone from an approved quarry, including hand packing and filling voids with coarse sand, consolidating and compacting with power roller. Complete as per drawings, specifications and approval of OGDCL / Engineering Consultant.

14. STORM WATER DRAINS

Providing and constructing of Storm Water Drains in slopes comprising of lean and R.C.C concrete, including steel reinforcement, excavation/ backfilling, steel formwork and its removal, leveling, vibrating, compacting, curing and providing expansion joint at 30 meter interval. Complete in all respect as per drawings, specifications and approval of OGDCL / Engineering Consultant.

15. RCC CATCH BASIN

Providing and constructing RCC Catch Basin comprising of lean & R.C.C concrete, connection with C.S. Pipes (to be supplied by piping), steel reinforcement, applying 13 mm thick water-proof plaster, providing and installation C. I. grating cover with frame. Complete as per details and invert levels shown on drawings including excavation/ backfilling, form work and its removal, leveling, vibrating, compacting, curing, cutting, bending and placing steel bars etc. Complete as per drawing, specifications and approval of OGDCL / Engineering Consultant.

16. RCC MANHOLES

Providing and constructing RCC Manholes comprising of lean & R.C.C concrete, connection with C.S. Pipes (to be supplied by piping), steel reinforcement, applying 13 mm thick water-proof plaster, providing and installation of C.I. Cover (weight 55 Kg.) with frame and ladder rungs. Complete as per details and invert levels shown on drawings including excavation / backfilling, form work and its removal, leveling, vibrating, compacting, curing, cutting, bending and placing steel bars etc. Complete as per drawing, specifications and approval of OGDCL / Engineering Consultant.

17. R.C.C. VALVE PIT

Providing and constructing R.C.C. Valve Pit comprising of lean and RCC concrete, connection with C.S. Pipes (to be supplied by piping), steel reinforcement, providing and installation of steel checkered plate cover with frame and ladder rungs. Complete as per details and invert levels shown on drawings including excavation / backfilling, formwork and its removal, leveling, vibrating, compacting, curing, cutting, bending and placing steel bars, etc. Complete in all respects as per drawings, specifications and approval of the OGDCL / Engineering Consultant.

18. GRAVEL FILLING

Providing and laying Gravel (50 mm down) from an approved quarry, at locations shown on drawings or as directed. Including leveling, dressing, watering and compaction of sub-grade by means of mechanical plate compactor / roller. Complete as per drawings, specifications and approval of OGDCL / Engineering Consultant.

19. CARBON STEEL PIPE SLEEVES

Providing & fixing carbon steel pipe sleeves (API 5L Gr. B). Including welding of pipe with 50 mm wide x 6 mm thick plate and epoxy coating both internally and externally. Complete as per drawing, specifications and approval of OGDCL / Engineering Consultant.

- i) 300 mm Ø
- ii) 250 mm Ø
- iii) 200 mm Ø
- iv) 150 mm Ø
- v) 100 mm Ø

20. DISMANTLING / REMOVAL OF MISCELLANEOUS R.C.C. STRUCTURES

Dismantling of existing R.C.C. / P.C.C Structures, at any height, as per location / dimensions shown on drawing or as directed, including cutting / removal of reinforcement bars and embedded items etc., (if required) scaffolding and disposal of

surplus material outside Plant limits or as directed. Complete in all respect as per drawings, specifications and approval of OGDCL / Engineering Consultant.

21. DISMANTLING /REMOVAL OF EXISTING CONCRETE PAVEMENT

Dismantling of Existing Concrete of varying thickness of Pavement. Including dismantling / removal of Stone Soling, blinding and any other RCC / PCC elements encountered during dismantling or excavation etc. Complete as per locations / dimensions shown on drawing or as directed, including disposal of surplus material outside Plant limits or as directed. Complete as in all respect as per drawings, specifications and approval of OGDCL / Engineering Consultant



OIL & GAS DEVELOPMENT COMPANY LIMITED

NASHPA COMPRESSION FACILITY PROJECT

**SCHEDULE OF RATES
FOR
ADDITIONAL CIVIL WORKS (IF ANY)**

SCHEDULE OF ADDITIONAL RATES FOR NASHPA COMPRESSION FACILITY PROJECT

S. No.	Item	Qty.	Unit	Unit Rate (Rs.)
1	Cleaning, Grading, Levelling as per BOQ Item No.1		m ²	
2	Excavation as per BOQ Item No. 2		m ³	
3	10MPa Concrete as per BOQ Item No. 3		m ³	
4	21MPa Concrete as per BOQ Item No. 4		m ³	
5	28MPa Concrete as per BOQ Item No. 5		m ³	
6	Steel Reinforcement as per BOQ Item No. 6		Tons	
7	Steel Embedded Parts as per BOQ Item No. 7			
	i) Angle		Kg	
	ii) Channel		Kg	
8	Coarse Sand Filling as per BOQ Item No. 8		m ³	
9	PVC Pipe Sleeves as per BOQ Item No.9			
i.	50 mm Ø x 150 mm long		No.	
ii.	100 mm Ø x 150 mm long		No.	
iii.	150 mm Ø x 300 mm long		No.	
10	Earth Filling from Outside source as per BOQ Item No.10a		m ³	
11	Earth Filling using surplus excavated material as per BOQ Item No.10b		m ³	
12	12MPa concrete as per BOQ Item No. 11		m ³	
13	17MPa Concrete in pavement / floor as per BOQ Item No. 12		m ³	
14	Stone Soling as per BOQ Item No.13		m ³	
15	Strom Water Drain as per BOQ Item No. 14		Rm	
16	RCC Catch Basin as per BOQ Item No.15		Nos.	

17	RCC Manholes as per BOQ Item No.16		Nos.	
18	RCC Value Pit as per BOQ Item No.17		Nos.	
19	Gravel Filling as per BOQ Item No.18		m ³	
20	Carbon Steel Pipe Sleeves as per BOQ Item No. 19			
	i) 100 mm (4" Ø)		R.m.	
	ii) 150 mm (6" Ø)		R.m.	
	iii) 200 mm (8" Ø)		R.m.	
21	Dismantling / Removal of miscellaneous RCC / PCC structures as per BOQ Item No.20		m ³	
22	Dismantling / Removal of existing Concrete Pavement as per BOQ Item No.21		m ³	