

Sun Petrochemicals Private Limited

(SunPetro)

Commercial & Supply Chain Management

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Chandivali, Powai, Mumbai- PIN – 400072, Maharashtra [INDIA]

www.sunpetro.com

CIN: U24219GJ1995PTC028519

No. SunPetro/Gujarat/Onshore/IDS/2022-23/SPPL-134/Bulletin-10

Date: 07-02-2023

BULLETIN #10

Sub: Hiring of Rig for Integrated Drilling Services on Callout basis for Onshore Oil & Gas Fields.

Ref: Tender No.: SunPetro/Gujarat/Onshore/IDS/2022-23/SPPL-134

Sun Petrochemicals Private Limited (SunPetro), hereby authorized following amendment / clarification in the above referred Tender:

Bidder to note that, additional Scope of Work is added in subject tender along with revised price schedule are as follows:

Sr No	Content	Remarks
1	Scope of Work	Refer as attached Annexure-1
	1 Tubulars (Casing and Tubing)	
	2 Well Head and X-Mass Tree Assembly	
	3 Civil Work	
	4 Well Intervention & Stimulation Service	
5 Casing Accessories		
2	Revised Price Schedule	Bidder to submit their rates as per Revised Price Schedule format considering the additional scope of work. Please refer Revised Price Schedule attached at Annexure-2

All other terms and conditions of tender remains unchanged.

Regards

Sun Petrochemicals Pvt. Ltd.

ADDITIONAL SCOPE OF WORK

Sr No	Content
1	Tubulars (Casing and Tubing)
2	Well Head and X-Mass Tree Assembly
3	Civil Work
4	Well Intervention & Stimulation Service
5	Casing Accessories

1. TUBULARS (CASING AND TUBINGS):

1.1. SCOPE OF SUPPLIES (SOS) & TECHNICAL SPECIFICATION (TS)

SunPetro intends to purchase as below, all Casing should be supplied in R-3 range (in between 34-48 feet range) and all Tubing should be supplied in R-2 range as per latest edition of API 5CT.

Sr N	Description of Items	Specification/ Size	UOM	Remark
1	Casing - 9 5/8" BTC, 40 PPF, K-55, R-3	9 5/8"	Meter	
2	Casing - 7" BTC, 29 PPF, L-80, R-3	7"	Meter	
3	Tubing - 2 7/8", EUE, 6.5 ppf, N-80, R-2	2 7/8"	Meter	
4	API Drift for 9 5/8" BTC, 40 PPF, K-55, R-3 Casing	9 5/8"	No.	
5	API Drift for 7" BTC, 29 PPF, L-80, R-3 Casing	7"	No.	
6	API Drift for 2 7/8", EUE, 6.5 ppf, N-80, R-2 Tubing	2 7/8"	No.	
7	Casing Pup Joint - 7" BTC, 29 PPF, L-80, Length: 6 Meter	7"	No.	
8	Tubing Pup Joint - Tubing - 2 7/8", EUE, 6.5 ppf, N-80, Length: 0.5 Meter	2 7/8"	No.	
9	Tubing Pup Joint - Tubing - 2 7/8", EUE, 6.5 ppf, N-80, Length: 1 Meter	2 7/8"	No.	
10	Tubing Pup Joint - Tubing - 2 7/8", EUE, 6.5 ppf, N-80, Length: 1.5 Meter	2 7/8"	No.	
11	Tubing Pup Joint - Tubing - 2 7/8", EUE, 6.5 ppf, N-80, Length: 2 Meter	2 7/8"	No.	
12	Tubing Pup Joint - Tubing - 2 7/8", EUE, 6.5 ppf, N-80, Length: 3 Meter	2 7/8"	No.	
13	Tubing Pup Joint - Tubing - 2 7/8", EUE, 6.5 ppf, N-80, Length: 5 Meter	2 7/8"	No.	

Notes:

- All Casings & Tubings Must manufacture as per latest API guidelines.
- Supplier must provide the Company Valid API certification history for the mill. Mill must have continued valid API certification.
- Must provide the pressure test certificate & MTC for the LOT & Heat Number supplied.
- API Grade Casings & Tubings must be manufactured as per API Spec. 5CT, latest edition and must bear API monogram. A copy of valid API Spec. 5CT certificate from the Manufacturer shall be submitted along with the offer.
- The Casings & Tubings shall be brand new un- used. (Un - used Without thread - i.e. Thread must be new)
- Couplings shall be as specified in API Spec. 5CT (latest edition) and must be manufactured by API approved mills, as applicable. All couplings shall be inspected as per API Spec. 5CT.
- Coating shall be done as per API Spec. 5CT (latest edition) and adequately oiled for protection from rust while in transit. The coating shall be rated to protect the pipe for at least three months.
- Pipe ends: Ends must be prepared as per relevant API specifications. Close end vented plastic or composite protectors at both ends as specified in API 5CT (latest edition) shall be used to protect the ends. Metal protectors shall not be acceptable.
- The threading and gauging of the casing shall be in accordance with API Standard 5CT and shall be in accordance with QA plan of threads.
- The Casing & tubing supplied must be as per the API tolerance limit, any deviation on ID should be as per API.
- The offer must contain detailed description of the materials giving details of size, weight/ wall thickness, grade, length range, type of end, API Std., end protectors etc.
- Marking is to be done on each joint strictly as per API Spec. 5CT
- The colour coding shall be done as per API Spec. 5CT (latest edition).

14. Bundling Requirements: • Diameters less than 7” – bundled in a manner to prevent any metal-to-metal contact. • Diameters 7” and larger if shipped loose – Bumper rings (donut type) along length of pipe to prevent metal to metal contact. Use of nylon slings per lift is recommended for shipment.
15. Bidder/Contractor need to send material to our warehouse in open top container or in loose bundles on trailer (but it needs to be transport as per API Standards and without metal-to-metal contacts of tubulars with proper wooden dunnage).
16. If Bidder/Contractor sends material in close container, it will not be accepted.
17. Bidder/Contractor shall be responsible for any damage cause while unloading tubulars if not sent in proper way as per API Standards and with proper wooden dunnage.
18. It is recommended that Bidder/Contractor representative shall be available to check all casing prior to unload from trailer at our warehouse to re-check any damage cause while transportation.
19. Bidder/Contractor shall be responsible for delivery of material at designated site as per delivery schedule. Any damage to the material shall be again inspected as per API Spec. 5CT / Replaced at Bidder/ Contractor cost.
20. The Bidder need to submit all Technical Documents in supporting of Technical Evaluation Proposal for Acceptance to Sunpetro.
21. The Bidder need to take Technical Acceptance from Sunpetro prior to finalizing Manufacturer/ Authorizes Dealer or Supplier.
22. In case of non-performance of work as per satisfaction of the Company, purely for the reason attributable to the Contractor, no payment will be made.
23. Inspection to be carried out by SunPetro representative at Bidders’ premises before dispatch.
24. Logistics of all material upto Sunpetro Well Site will be in Contractors Scope.
25. Paint Stencil
Tenderer shall stencil an identification marking in white paint on the outside surface of each length of the tubular goods with the following marking sequence in accordance with API 5CT:
 - I. Company Name: SunPetro
 - II. Company Item Code (Will be mentioned in PO)
 - III. Company Purchase Order Number.
 - IV. API Monogram, whenever applicable
 - V. Size in inches
 - VI. Weight in lb./ft
 - VII. Tubular Grade
 - VIII. Thread Type
 - IX. Length in feet (up to two (2) decimal places)
 - X. Month and Year of Production
26. The following tests and inspections shall be carried out as per API spec. 5CT (latest edition) and results there of furnished to SunPetro along with the supply. Mill Test certificates are to be submitted to SunPetro in Original.
 - i) Testing of Chemical Composition.
 - ii) Testing of Mechanical Properties.
 - iii) Hydrostatic Tests.
 - iv) Dimensional testing (wall thickness, drift test, length, weight, determination, and straightness).
 - v) Visual Inspection.
 - vi) Non-Destructive Inspection.

Bidder/ Contractor shall submit all above documents prior to dispatch of material and on acceptance of same by Sun Petrochemicals Pvt. Ltd material shall proceed for dispatch. The manufacturer shall furnish a certificate of compliance stating that the material has been manufactured, sampled, tested and inspected in accordance with API Spec. 5CT (SR-15), latest edition. The above certificate should be submitted to sun petrochemicals in Original. In addition to above, SunPetro reserves right to for carrying out Inspection by SunPetro representatives at Bidders premises before dispatch.

27. Tubular Selection Criteria:
 - a. Bidder’s Qualification:
The bidder should be Manufacturer /authorized dealer or supplies of quoted items Manufacturer. Further Manufacturer shall have valid API Certificate/license for same.

- b. Bidders' Experience:
The Manufacturer /Bidder must have minimum experience of 3 (three) years till December 2020 of supply of quoted items.
- c. Supporting Document
 - i. For bidder qualification Manufacturer factory registration and valid Authorization letter from manufacturer to bidder to be submitted
 - ii. For proof of requisite experience, any one of the following documents / photocopies must be submitted along with the bid:
 - iii. Copy of certificate of completion (COC)/Certificate of Payment (COP) of jobs successfully completed in last five years from the date of floating the enquiry showing the gross value of the supplies.

2. WELL HEAD AND X-MASS TREE ASSEMBLY:

2.1. SCOPE OF SUPPLIES (SOS) & TECHNICAL SPECIFICATION:

Table A: Scope of Supply for 9 5/8" X 7", TUBING SIZE 2-7/8" EUE

S. No.	Part Name / Description	Qty	Unit
1.0	WELL HEAD AND X-MASS TREE ASSEMBLY FOR 2CP, CASING SIZE: 9 5/8" X 7", TUBING SIZE 2-7/8" EUE, PRESSURE-5000 PSI. NOTE: MATERIAL-AA CLASS, PSL-2, PR-1, TEMP- 'U' as per latest edition of API- 6 A Each Set Consisting of following below items:	1	set
1.1	CASING HEAD HOUSING- 11"-5M FLG TOP-9 5/8" BOTTOM SLIP-ON WELD WITH 2" LP THRDS, SIDE OUTLET	1	No.
1.2	CASING HANGER- SLIP AND SEAL CASING HANGER MANUAL 11" X 7"(Compatible to RUN ESP pump)	1	No.
1.3	FLOW LINE PLUG-2" LPX6" LONG	1	No.
1.4	NIPPLE-2" LPX 6" LONG	1	No.
1.5	GATE VALVE-2 1/16"X5000 PSI WP,2"LP THREADED END	1	No.
1.6	PRESSURE GUAGE-6" DIA, 1/2" NPTM CONN,0-5000 PSI LIQUID FILLED	1	No.
1.7	RING GASKET-RX 54	1	No.
1.8	STUD WITH TWO NUTS-1-7/8"X14-1/4" LONG, ZINC PLATED	12	No.
1.9	PRIMARY AND SECONDARY SEAL ASSY.-11"X 7"	1	No.
1.10	TUBING HEAD SPOOL-11"-5000 PSI WP FLG BTM X 7 1/16"-5000 PSI WP FLG TOP WITH 2 1/16"-5000 PSI STUDDERED SIDE OUTLET	1	No.
1.11	GATE VALVE-2 1/16"X5000 PSI WP, FLANGE END	4	No.
1.12	RING GASKET-RX24	6	No.
1.13	STUD WITH TWO NUTS-7/8"X6-1/2" LONG, ZINC PLATED	48	No.
1.14	BLIND FLANG-2 1/16"-5000 PSI	1	No.
1.15	TUBING HEAD ADAPTOR ASSEMBLY- 7 1/16"-5000 PSI FLG BOTTOM X 2 9/16"-5000 PSI STUDDERED TOP. 2" NPT CONN. PORT, 1/4" NPT CONN. PORT. (Compatible to RUN ESP pump) with 2" and 1/4" NPT Blind Plug.	1	No.
1.16	RING GASKET-RX-46	1	No.
1.17	TUBING HANGER-EXTENDED NECK,2-7/8" LIFT X BOTTOM THREAD, 2" NPT CONN. TOP AND BOTTOM, 1/4" NPT CONN. PORT. (Compatible to RUN ESP pump)	1	No.
1.18	BULL PLUG-2" LPX4" LONG, 1/2" NPT CONN.	1	No.
1.19	GATE VALVE-2 9/16"X5000 PSI FLANGE END	3	No.
1.20	STUD WITH TWO NUTS- 1 3/8"X11 1/4" LONG ZINC PLATED	12	No.
1.21	RING GASKET-RX-27	5	No.
1.22	STUD WITH TWO NUTS- 1"X7" LONG ZINC PLATED	40	No.
1.23	STUDDERED TEE-2 9/16"-5000 PSI RUN X 2 1/16"-5000 PSI TWO SIDE OUTLET	1	No.
1.24	GATE VALVE-2 1/16"X5000 PSI FLANGE END	2	No.
1.25	PRESSURE GUAGE-6" DIA, 1/2" NPTM CONN,0-5000 PSI LIQUID FILLED	2	No.
1.26	TREE CAP-2 9/16"-5000 PSI FLG BOTTOM COMPLETE WITH NUT AND PLUG THRD. 1/2" NPT FEMALE, 2- 7/8" LIFT THRDS	1	No.
1.27	POSITIVE CHOKE-2 1/16"X5000 PSI FLANGED END, 1" ORIFICE	2	No.
1.28	STUD WITH TWO NUTS - 7/8"X6 1/2" LONG, ZINC PLATED	48	No.
1.29	WELDNECK FLANG- 2 1/16"X 5000 PSI	2	No.
1.30	RING GASKET-RX – 24	6	No.
1.31	2 1/16" X 5000 PSI FLANGE WITH 2" LP THREAD	1	No.
2.0	11" Test Plug compatible to above well head (For Section A)	1	No.
3.0	7 1/16" Test Plug compatible to above well head (For Section B)	1	No.
4.0	7 1/16" T/Hanger (Centric) with 2 7/8" EUE UP and BOTTOM Lift. Compatible to above Well Head	1	Nos.
5.0	7 1/16" x 5M - 2 9/16" x 5M Adaptor Flange (Centric)	1	Nos.

SPARES for 9 5/8" X 7", TUBING SIZE 2-7/8" EUE

Sr NO	Part Name / Description	Quantity	Unit
i.	RING GASKET-RX 54	2	No.
ii.	STUD WITH TWO NUTS-1-7/8"X14-1/4" LONG, ZINC PLATED	12	No.
iii.	RING GASKET-RX24	6	No.
iv.	PRIMARY AND SECONDARY SEAL ASSY.-11"X 7" compatible to above Well Head Assembly	4	Nos.
v.	RING GASKET-RX-46	4	No.
vi.	STUD WITH TWO NUTS- 1 3/8"X11 1/4" LONG ZINC PLATED	24	No.
vii.	RING GASKET-RX-27	5	No.
viii.	STUD WITH TWO NUTS- 1"X7" LONG ZINC PLATED	20	No.
ix.	STUD WITH TWO NUTS - 7/8"X6 1/2" LONG, ZINC PLATED	32	No.
x.	WELDNECK FLANG- 2 1/16"X 5000 PSI	2	No.
xi.	2 1/16" X 5000 PSI FLANGE WITH 2" LP THREAD	2	No.
xii.	BULL PLUG-2" LPX4" LONG, 1/2" NPT CONN.	2	No.
xiii.	CASING HANGER- SLIP AND SEAL CASING HANGER MANUAL 11" X 7"(Compatible to RUN ESP pump)	2	No.

Note:

- Contractor to supply material following relevant API class certification.
- SunPetro reserves its right to carry out inspection by their own or through Third Party Inspector (TPI) during manufacturing or before dispatch.
- Well Head Assembly Selection criteria:
 - a. Bidder's Qualification:
The bidder should be Manufacturer /authorized dealer of quoted items.
 - b. Bidders' Experience:
The Manufacturer / Bidder must have minimum experience of 3 (three) years till December 2022 for supply of quoted items.
 - c. Supporting Document
 - (i) For bidder qualification Manufacturer factory registration and valid Authorization letter from manufacturer to bidder to be submitted.
 - (ii) For proof of requisite experience, any one of the following documents / photocopies must be submitted along with the bid: Copy of certificate of completion (COC)/Certificate of Payment (COP) of jobs successfully completed in last five years from the date of floating the enquiry showing the gross value of the supplies.
 - (iii) Manufacture must have the valid API certification.

RESPONSIBILITY MATRIX

S. No.	Description	Scope	
		Contractor	SunPetro
1	All well head must follow API-6A guideline.	<input type="checkbox"/>	
2	Provide API- certification (Bidder Must have the Valid API certification)	<input type="checkbox"/>	
3	Provide Pressure test report.	<input type="checkbox"/>	
4	Provide Material Class-certification.	<input type="checkbox"/>	
5	INSTALLATION, COMMISSIONING AND TESTING OF WELLHEAD AT WELL SITE: A. The BIDDER will have to provide wellhead Engineer and services to make up, run and install and test the BIDDER's supplied equipment. B. It is the suppliers" / contractors" responsibility to service, commission and test the well head components at each stage at well site after it is installed. The above jobs shall be carried	<input type="checkbox"/>	

	out at contractor's expert supervision. Supplier/ contractor to provide competent and experienced wellhead Engineer.		
6	API Monogram is to be embossed on the supplied items.	<input type="checkbox"/>	
7	Equipment Marking: Manufacturers name, API Monogram, rated working pressure, bore size, service conditions, PSL& Trim designation, Assembly Serial Number, year of manufacture, are to be marked on the body as well as on the name plate.	<input type="checkbox"/>	
8	Storing, packing and shipping should be as per API	<input type="checkbox"/>	
9	A copy of valid API authorization certificate/license is to be forwarded.	<input type="checkbox"/>	
10	Logistics of all material upto Sunpetro Well Site will be in Contractors Scope.	<input type="checkbox"/>	

3. SCOPE OF LAND ACQUISITION, CIVIL & GREEN BELT WORKS FOR DRILLING OPERATIONS IN OIL FIELDS/BLOCKS OF SUN PETROCHEMICALS

Broad scope of work related with land acquisition and Civil works for transportation and deployment of land-based drilling rig in Oil Fields of SunPetro in the state of Gujarat, following will be the.

3.1 Land Acquisition:

Typically, an area of 100mx100m is required to meet the requirements of a drilling rig including the space required for the waste pit. The location of the land is identified based on the coordinated of the well are given by the G&G team of SunPetro. The road to the drill site will require minimum 10m wide strip of land. The contractor shall find out the ownership details of the required land from the land records, check the actual physical possession details of the said land.

After the land is identified and its ownership details checked, the contractor will interact with the landowners and will negotiate the amount of annual lease rent and onetime crop compensation to be paid. For the purpose of benchmarking, prevailing rates of ONGC for lease rent and crop compensation in that particular area will be considered.

Before signing the lease rent agreement, the contractor will also carry out land demarcation survey with the help of local Talati. The lease rent agreement will be signed with a provision of further extension of the agreement on annual basis. Standard format for the lease agreement will be provided by the SunPetro.

3.2 Civil Works:

The scope of Civil works at the drill site and approach road shall be but not limited to the following.

3.2.1 Approach Road:

Height of the road shall be kept at least 50cm above the HFL. Width of the road at top will be 4.00m of carriageway plus 1.00m(Min.) side shoulders on each side. The embankment will be constructed using good quality yellow soil and will have side slope of 1:1 and will be compacted thoroughly to 95% proctor density. Over the well compacted embankment, metaled road with standard WBM specification will be constructed which should be capable of meeting the requirements of drilling rig transportation. Periodical repair/maintenance will be done by the contractor during the drilling operations to ensure that the road is in full serviceable condition. Typical sketch of the road cross section will be provided by SunPetro.

3.2.2 Works at drill site before Rig movement:

- a) Excavation of the waste pit to meet the requirements of the specific drilling rig to be deployed. This is to be provided with a HDPE sheet lining of minimum 400-micron thickness to ensure that the drilling fluid do not percolate in the soil.
- b) Construction of the cellar pit using Cement concrete of Min. grade M20. Dimensions of the cellar pit will be as per the requirements of drilling rig and subsequent operational requirement of SunPetro. Top level of the cellar pit shall be kept at least 50cm above the HFL of the area.
- c) For the foundation of all other equipment and the Rig carrier, portable precast RCC slabs of 4mx2m size and thickness of 150mm will be used. Nearly 60 Nos. of slabs are required at a typical drill site. The design of the RCC slabs will be provided by SunPetro. The contractor will ensure quality of the RCC slabs so that these slabs can be re-used for Min. 8 drill site.
- d) Hardening of the area for rig movement, placement of equipment, bunk housed and mud tanks etc. Generally, around 4000 sqm of area needs to be hardened.
- e) Arrangement of portable toilet unit and making a septic tank sufficient to accommodate the sewage generated during drilling operations. This also require periodic emptying to avoid overflow.

3.2.3 Works at the drill site after Rig movement:

- a) G.I Chain link fencing over a RCC pardi (as per the typical design of SunPetro) with total height of 1.80m above the general ground level.
- b) Fabrication and installation of gate as per typical SunPetro design
- c) Fabrication and installation of M.S well head cage as per typical SunPetro design.

3.2.4 Shed for Electrical equipment and security:

A shed of 3mx5m dimensions will be constructed with M.S supporting structure and Precoated G.I sheeting on sides and roof as per typical drawing provided by the SunPetro. The shed will be constructed over a masonry and concrete platform having top plinth level at 50cm above top of the cellar pit.

3.2.5 Green Belt/Tree plantation:

Tree plantation will be done at the periphery of drill site land (three rows) and one row on each side of approach roads. Selection of the trees shall be made considering the variety which grows well in the area. The saplings should be of min. 6 feet height at the time of plantation. Mixture of fertile local soil and compost manure shall be used for plantation. Regular watering, weeding, manuring, supporting and replacement of dying trees will be done to ensure proper growth of the trees.

3.2.6 Technical Specifications

In general, latest CPWD specifications will be applicable for all civil and plantation works. These specifications are available in public domain at cpwd.gov.in.

Note: Attached drawings for drilling well site development as:

Annexure-I Approach road- cross section

Annexure-II Chain-link fencing

Annexure-III Cellar pit

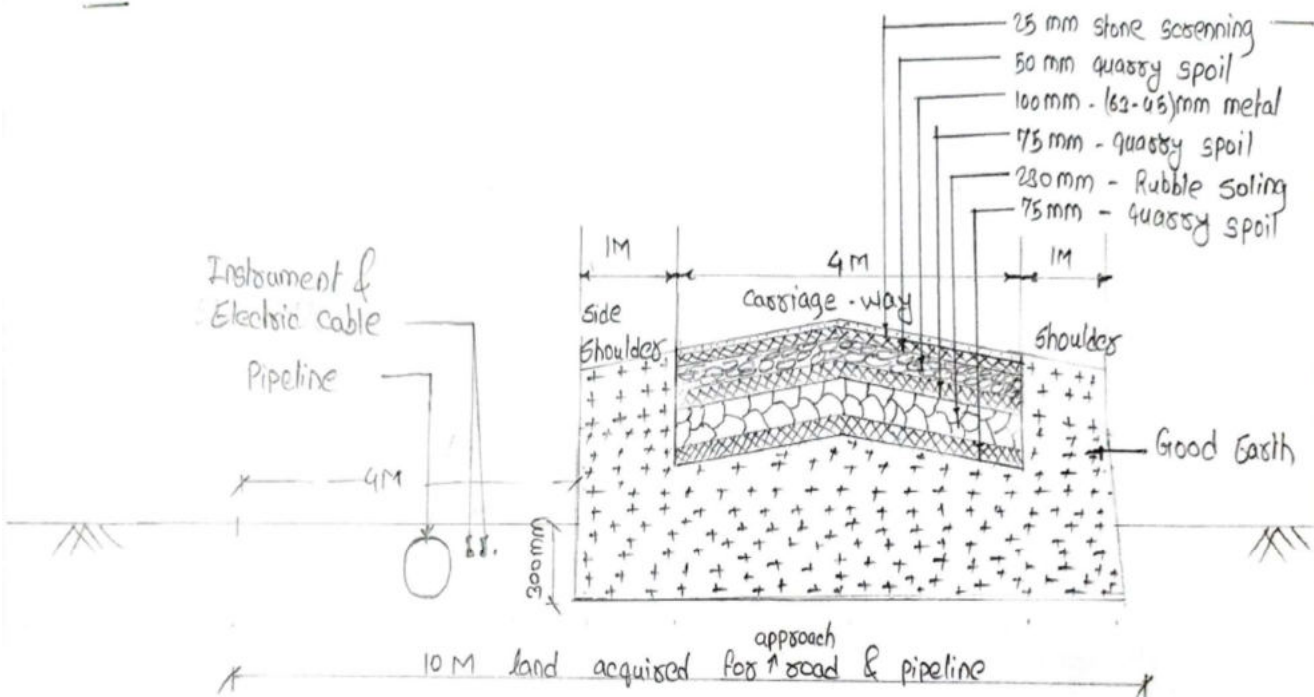
Annexure-IV MCC cum security shed flooring details

Annexure-V Well site area hardening and developing plan

3.3 Responsibility Matrix

SOW	Description	Responsibility Matrix	
		Sun Petro	Bidder
Preparation of well sites, construction & maintenance of roads, process related facilities and Horticulture/Land scaping works	Preparation of drawings		√
	Approval of drawings	√	
	As Built Drawings		√
	Inspection Testing & Quality Plan		√
	Mobilization/ Sourcing of required construction equipment		√
	Water supply for construction		√
	Sourcing all construction materials as per specifications		√
	Debris removal & disposal		√
	Mobilization of skilled/ unskilled manpower & setting up labour camp		√
	Testing of materials at approved labs		√
	Safety measures		√
	Fulfilling all requirements of labour laws & other statutory requirements		√
	Invoice preparation & required documentation		√
	Joint measurements, Scrutiny of invoice & payments for the work done. Measurement as per below table -1 & 2.	√	√
	Payment of all taxes/duties/levies/royalties etc		√
	Compliance to labour laws & meeting the requirements of all statutory authorities		√

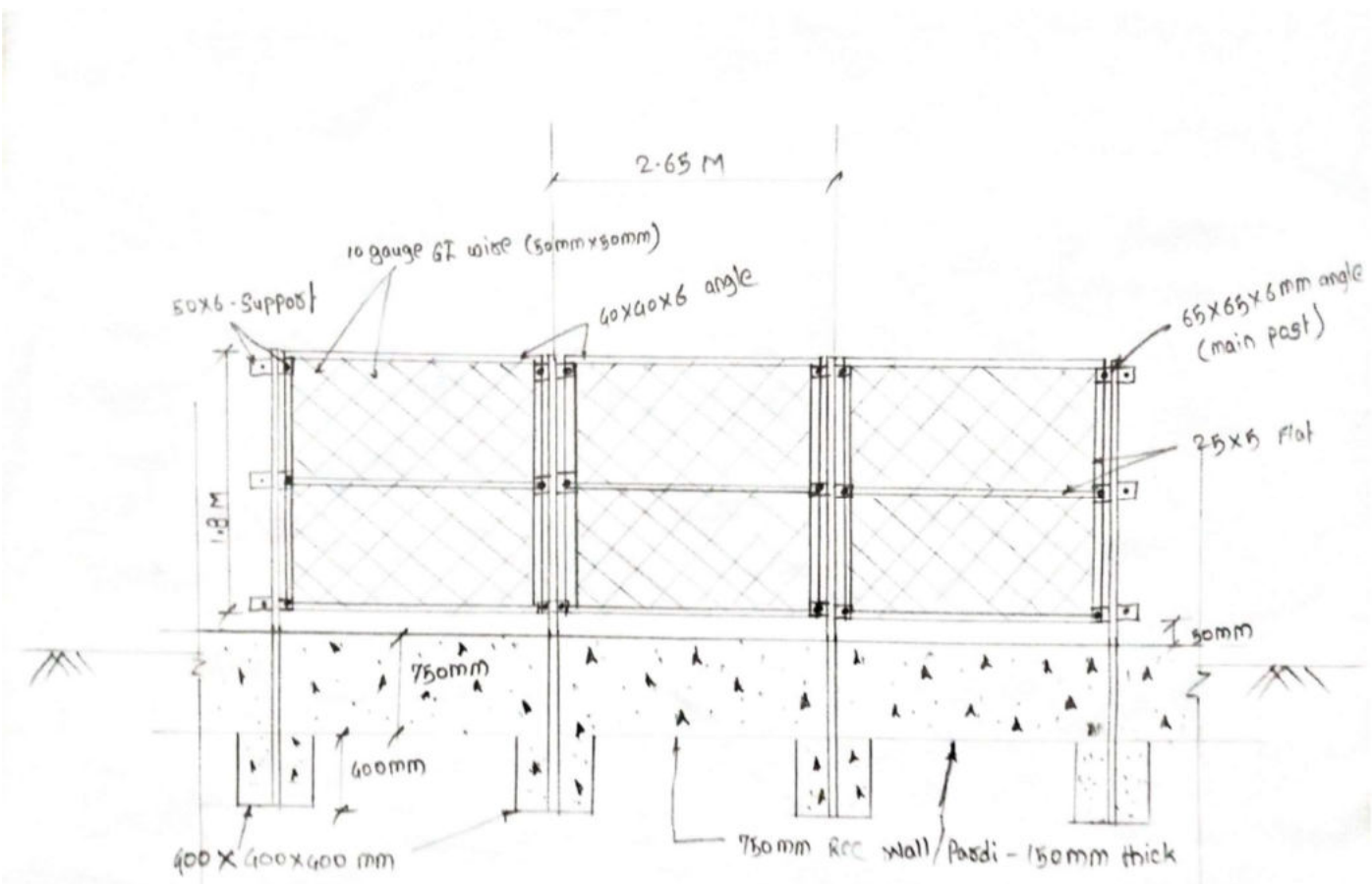
Annexure-I Approach road- cross section



C/S - Approach Road

Annexure-II

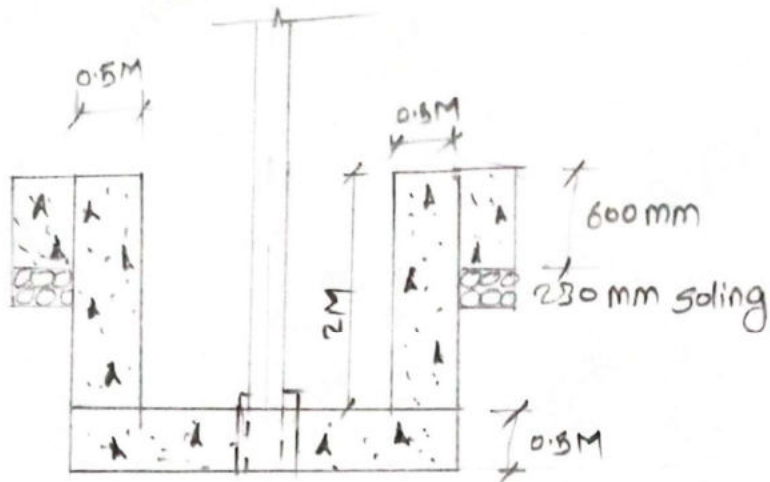
Chain-link fencing



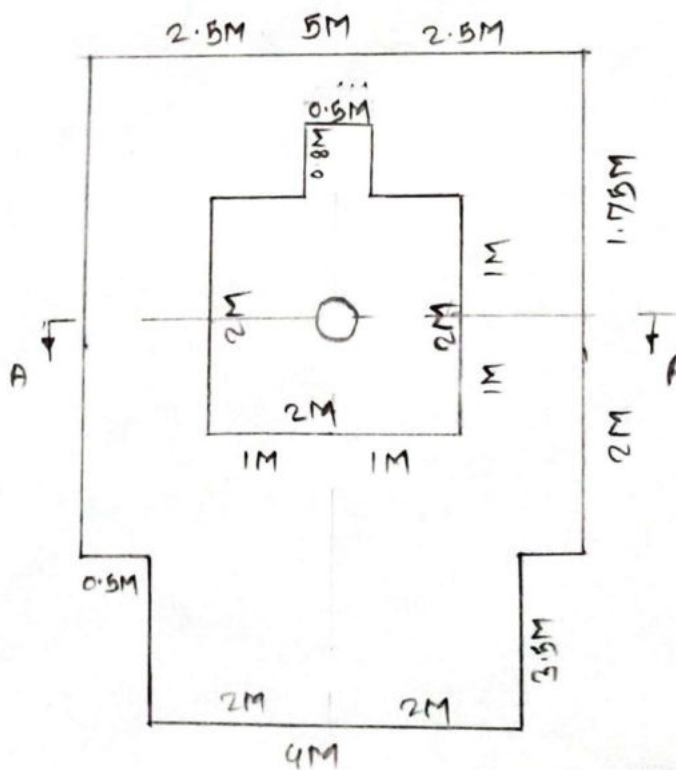
Boundary fencing - chainlink

Annexure-III

Cellar pit



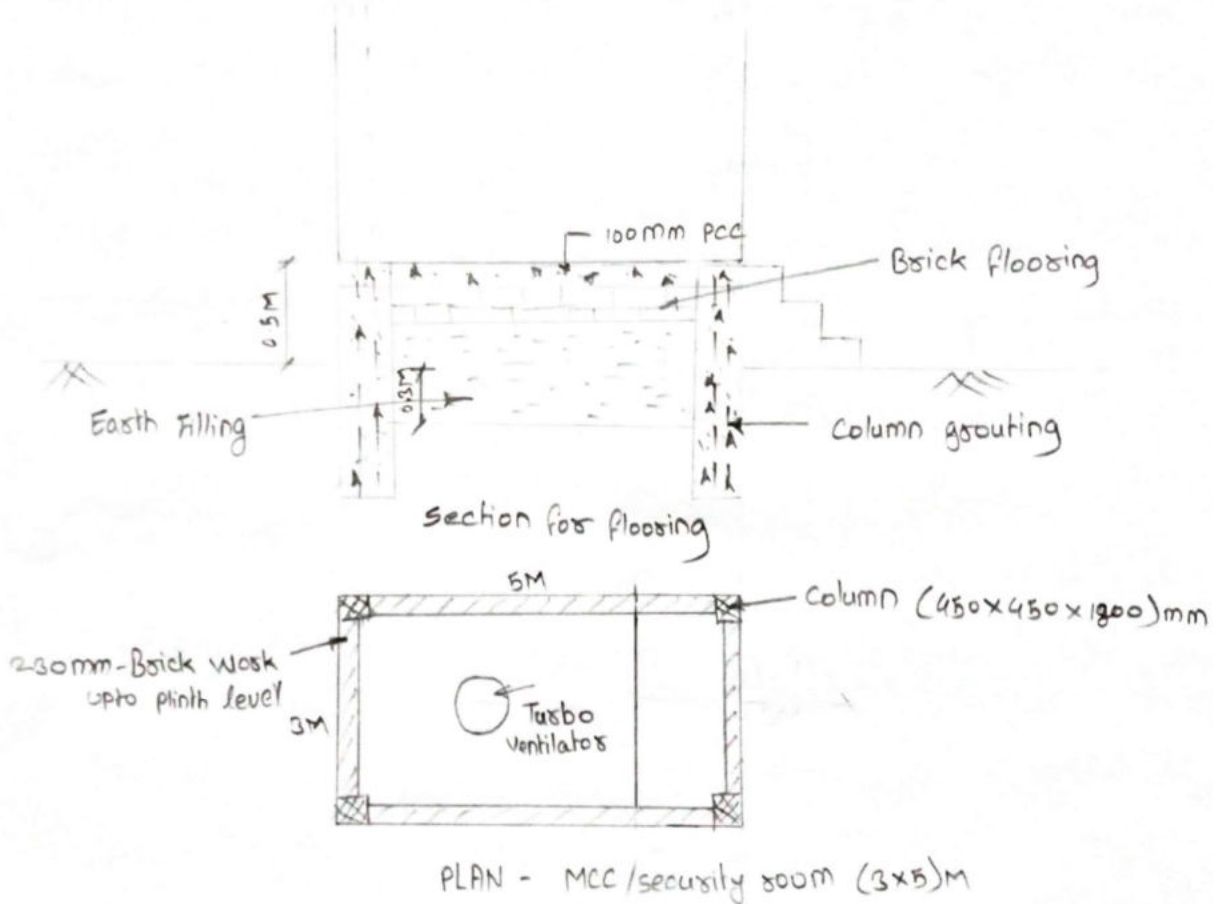
A-A section of cellar pit



PLAN - CELLAR PIT

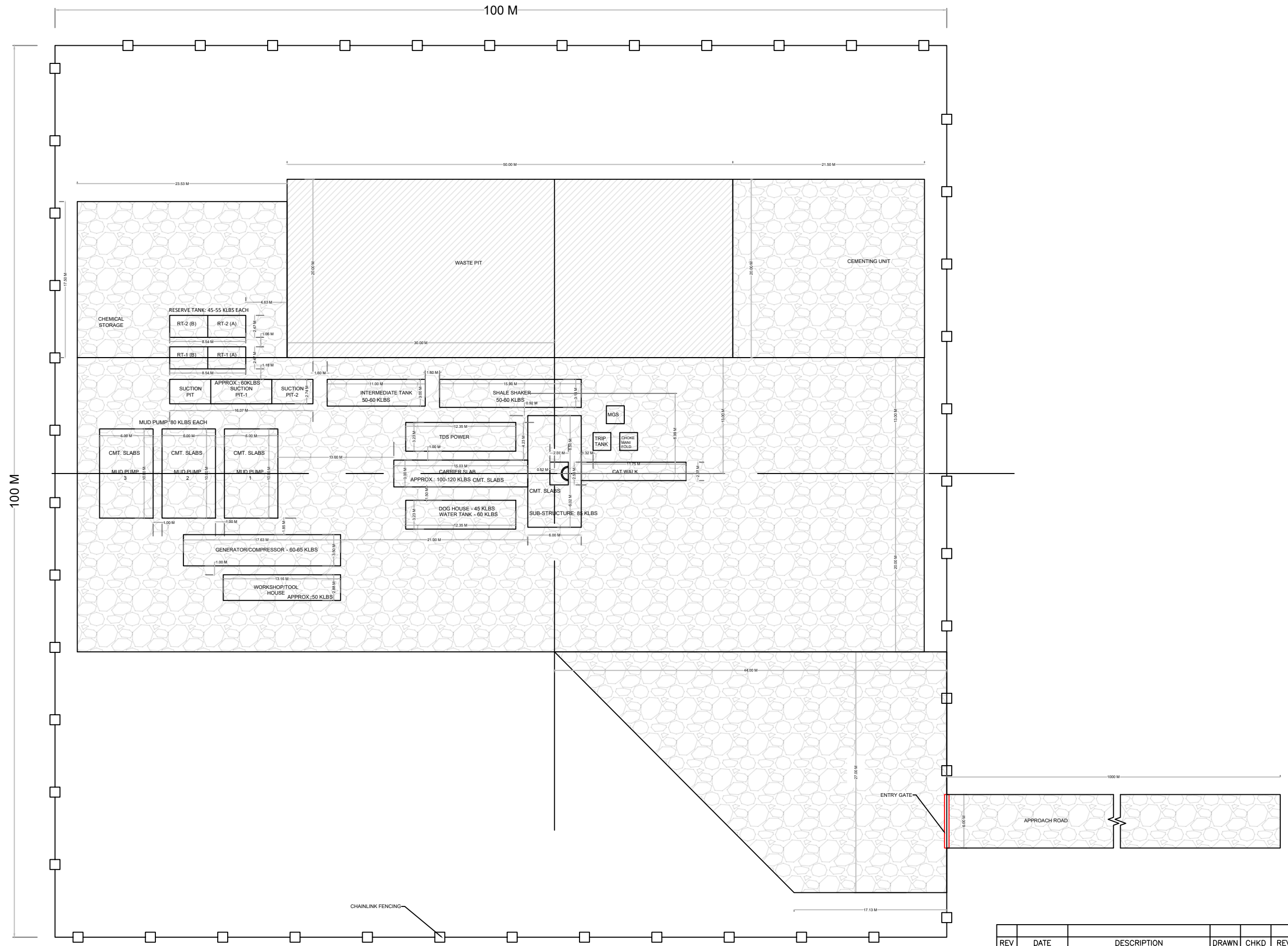
Annexure-IV

MCC cum security shed flooring details



Annexure-V


Well site area hardening and developing plan

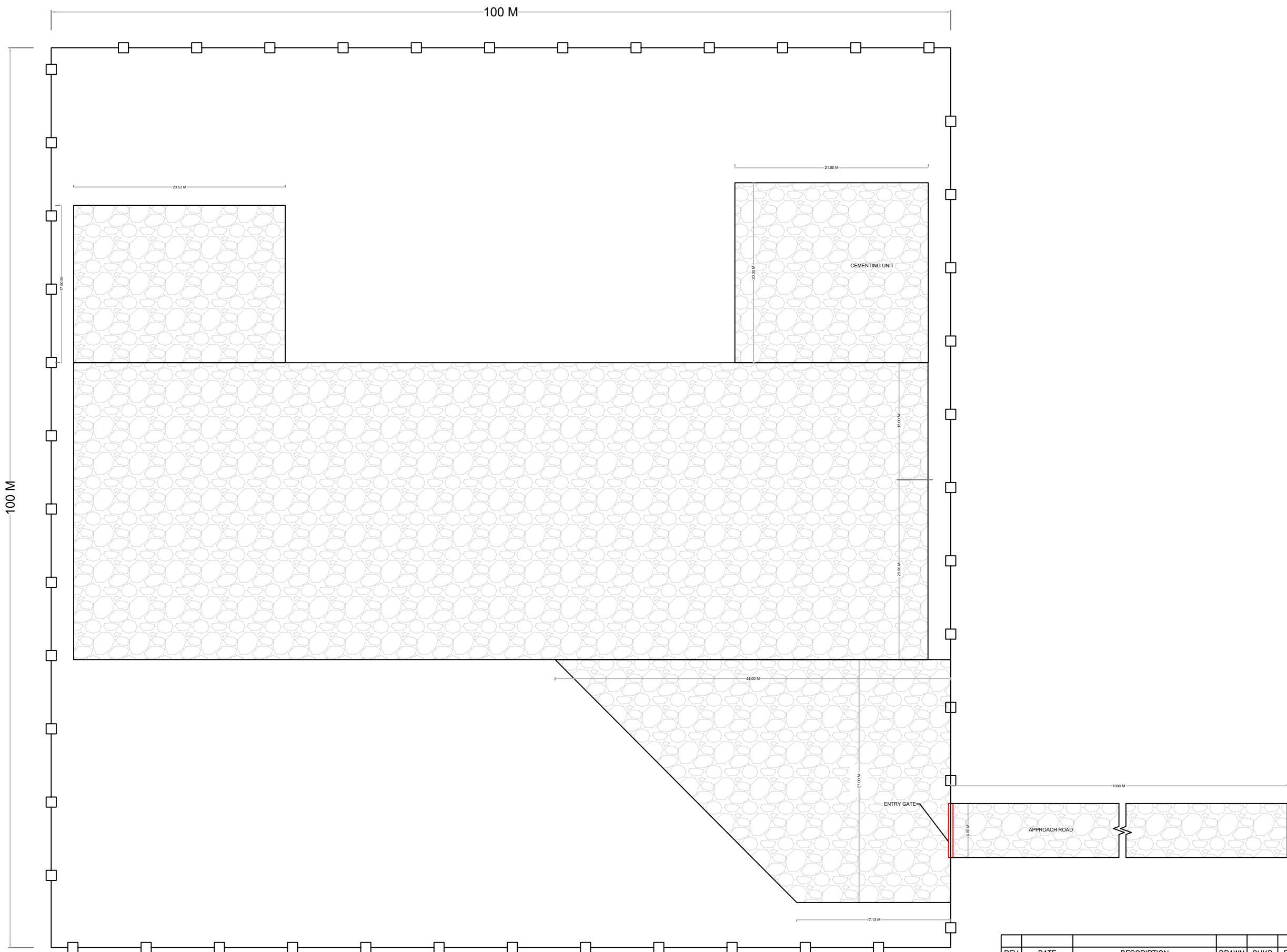


WELL SITE LAYOUT

NOTES:


1. WELL CENTRE TO SHALE SHAKE TANK- 7.41M
2. CARRIER RAMP TO MP 1- 2.85M
3. ALL MUD TANKS REQUIRED CEMENT SLABS
4. DERRICK, CROWN BLOCK, : 65 - 70 KLBS (*EXTRA ON RIG CARRIER)
5. CENTER TUBE: 55 KLBS

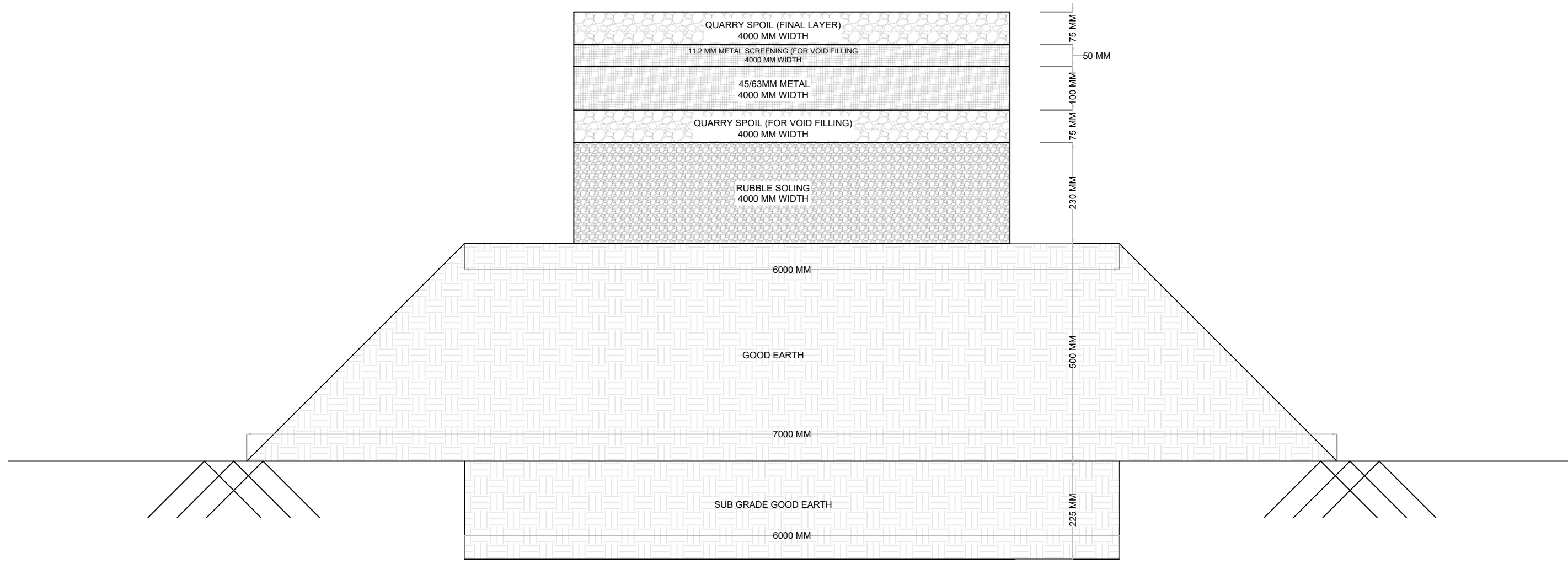
REV	DATE	DESCRIPTION	DRAWN	CHKD	REVD	APPD
 Sun Petrochemicals Pvt. Ltd. www.sunpetro.com						
PROJECT : BHASKAR FIELD						
TITLE : PLOT PLAN OF TYPICAL WELL SITE						
SIZE	SCALE	PROJECT NO.	DRAWING NO.	SHEET NO.	REV.	
A3	NTS		PPN	1 OF 3		



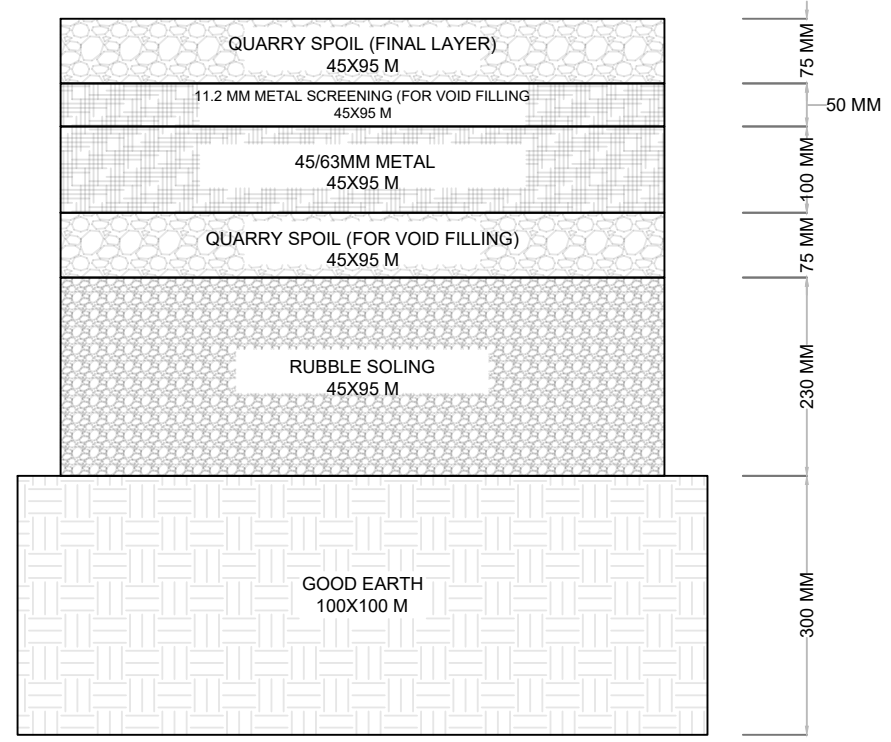
TYP. HARDENED AREA - WELL SITE
~4800 SQ.M

REV	DATE	DESCRIPTION	DRAWN	CHKD	REVD	APPD

		Sun Petrochemicals Pvt. Ltd. www.sunpetro.com			
PROJECT : BHASKAR FIELD					
TITLE : PLOT PLAN OF TYPICAL WELL SITE					
SIZE	SCALE	PROJECT NO.	DRAWING NO.	SHEET NO.	REV.
A3	NTS		PPN	2 OF 3	



TYP. CROSS SECTION FOR APPROACH ROAD



HARDENING AREA SECTION FOR WELL SITE


REV	DATE	DESCRIPTION	DRAWN	CHKD	REVD	APPD
		 Sun Petrochemicals Pvt. Ltd. www.sunpetro.com				
PROJECT : BHASKAR FIELD						
TITLE : TYP. CROSS SECTION FOR WELL SITES AND APPROACH ROAD						
SIZE	SCALE	PROJECT NO.	DRAWING NO.	SHEET NO.	REV.	
A3	NTS		PPN	3 OF 3		

Table 1 (Measurement for Civil work for Typical Drill Site in Bhaskar Field)

Sr. No.	Description	Nos	L	B	D	Total
1	Earth work in excavation by mechanical means / manual means over areas exceeding 30 cm in depth , 1.5m as width as well as 10 sqm on lan including getting out disposal of excavated earth lead upto 50m and lift upto 1.5m as directed by E-in-C. All kind of soil.					
	waste pit	1				
	main foun.	1				
	celler pit	1				
	mouse hole	1				
	RT 1/2 Tank	1				
	Mud tank	1				
	Mud pump	1				
	Rig carrier	1				
	Safety tank	1				
	Total in (Cubic Meter)					
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.					
	Qty as per item no.1					
	Total in (Cubic Meter)					
3	Clearing grass and removal of the rubbish upto a distance of 50m outside the periphery of the area cleaned.					
	Drill Site	1				
	Total in (Square Meter)					
4	Earth filling Good earth					
	Drill Site	1				
	Deduction of waste pit	-1				
	Deduction of cellar pit	-1				
	Total in (Cubic Meter)					
5	Centering and shuttering including strutting, propping etc. and removal of form for all heights Foundations, footings, bases of columns, etc. for mass concrete					
	celler pit	4				
		2				
		2				
		2				
		2				
	Total in (Square Meter)					
6	63 mm to 45 mm size stone aggregate					
	Drill Site	1				
	Cementing unit	1				
	T1 & T2 Unit	1				

	Total in (Cubic Meter)				
7	Stone screening 11.2mm nominal size (Type B)				
	Drill Site	1			
	Cementing unit	1			
	T1 & T2 Unit	1			
	Total in (Cubic Meter)				
7.1	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road / vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density				
	Qty as per Item No.6 + Item No. 7				
	Total in (Cubic Meter)				
8	Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with ½ tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead upto 50 m and lift upto 1.5 m :				
	Qty as per Item No.4 + Item No. 10				
	Total in (Cubic Meter)				
9	Rubble soling				
	Drill Site	1			
	Cementing unit	1			
	T1 & T2 Unit	1			
	Total in (Cubic Meter)				
10	Quarry spall Providing & Laying				
	Drill Site	2			
	Cementing unit	2			
	T1 & T2 Unit	2			
	Total in (Cubic Meter)				
11	Concrete of M25 grade with minimum cement content of 330 kg/cum				
	celler bottom	1			
		2			
	celler wall	2			
		2			
		2			
		1			
		1			
	deduction	-1			
	Total in (Cubic Meter)				
12	500-micron LDPE sheet	1			
	Total in (Square Meter)				

Table 2 (Measurement for Civil work for Typical Approach Road in Bhaskar Field)

Sr. No.	Item description	Unit	Nos.	L (m)	B Top(m)	B Bottom (m)	D (m)	Qty.
1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	Sqm	1					
2	Earth filling good earth over excavated sub-grade	Cum	1					
3	Earth filling good earth (trapezoidal section)	Cum	1					
4	Quarry Spoil	Cum	2					
5	Rubble Soling	Cum	1					
6	supply & stacking of 63-45mm stone aggregates	Cum	1					
7	Stone screening 11.2mm nominal size	Cum	1					
8	Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with ½ tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead upto 50 m and lift upto 1.5 m :	Cum						
9	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road / vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density	Cum						

4 WELL INTERVENTION & STIMULATION SERVICE

4.1. PURPOSE:

To carry out Well **activation, intervention, & Stimulation** job followed by **EOR** in vertical wells, & deviated wells to enhance Oil production.

4.2 SCOPE:

Service required but not necessarily limited to any or all of the following:

- To provide good quality equipment and skilled personnel required for Well intervention, Stimulation, & activation.
- To provide coiled tubing services, Nitrogen pumping services and MPPC and other related Units & equipments for well activation, dewaxing, sand cleaning, acidization & wells bore back washing
- To provide final report and all relevant data gathered at the end of each operation.
- Logistics of all material upto Sunpetro Well Site will be in Contractors Scope.

GUIDELINES:

Recommended Safe Operating Procedures & guidelines should be followed while carrying out well stimulation operation.

[Refer: OISD-182]

4.2.1 SERVICE REQUIRED

4.2.1.1 Activation of Oil/Gas Well (with Packer set)

Unit required: Coiled Tubing Unit (CTU) and Nitrogen Pumping Unit (NPU)

Activity:

- Unloading and activation of new/ work-over/ shut in/ ceased wells using CTU & NP units.
- Lowering of coiled tubing in stages to the bottom of the well or to the final depth as decided by the Company and displaces the well fluid with Nitrogen to the desired volume/ depth.
- Unloading and maintain of fluid levels of wells prior to perforations.

4.2.1.2 Sand cleaning from Well bore

Units required: CTU and MPPU (Multi-Purpose Pumping Unit) or NPU

Activity:

- Cleaning of sand particles deposited inside the well bore up to the bottom of the well or to the desired depth by using CTU and MPU or NPU.
- The circulation medium may be water, formation water, foam and other viscous nitrified gel etc. based on requirement.

4.2.1.3 Well killing/well fluid change over

Units required: MPPU, CTU (optional)

Activity:

- Pumping of water to replace drilling fluid or work-over fluid or vice versa using MPPU, CTU (optional) during emergency or for any special operation.
- In an emergency situation like uncontrollable release of well fluid, the well needs to be killed, for killing the well; requisite amount of suitable killing fluid at desired pressure should be pumped into the well bore to suppress inflow from the reservoir.
- The entire job will be carried out in presence and supervision of the Company's representative.

4.2.1.4 Acidization job

Units Required: MPU or MPPU, CTU & NPU (Packer Well)

Activity:

- Acidization of intended formations by pumping suitable acid.
- Well bore cleaning up and residuals Flow back from the well bore by CTU, NPU / MPPU (Packer Well)
- The design of individual job including selection of chemicals and acids will be decided by the company.
- Acid and other Chemicals required for the job will be supplied by Company.
- Prior to taking up the acid job, the company will furnish the available information to the bidder regarding recipe of the acid & chemicals to be used. Moreover, the chemical properties and brand name and MSDS information will also be provided.
- If desired by the bidder, a sample of the subject chemicals will also be given to the bidder for their laboratory testing

4.2.1.5 Injectivity testing of the well (before and after Acidization job)

Units required: MPPU

Activity:

- Injecting suitable liquid to the formation by pumping with MPPU.
- The contractor shall ensure proper record of pumping rates (i.e., injectivity) at different pumping pressures.

4.2.1.6 Any other job not covered above

Any other similar type of job, not spelt out above but, which can be carried out with the use of the offered CTU/NPU/MPPU/Acid Tanker and other equipment shall have to be carried out by the bidder as and when necessary.

4.3 TECHNICAL SPECIFICATION UNITS AND ACCESSORIES TO BE PROVIDED BY CONTRACTOR

4.3.1 COILED TUBING UNIT

Coiled Tubing Unit shall be Self-propelled (i.e., same prime mover for both road and operation mode) mounted on an oil field truck along with accessories to meet following minimum requirements:

Specification

- i. Dimensions (LxBxH): ≤1440x2550x4250 mm
- ii. Injector: 5T, Trailer- 11T, Generator- 0.3T, BOP &Stripper: 1.2 T, other: 19.5T
- iii. Injector Max. pulling capacity: 60000lbs
- iv. Injector Max. snubbing capacity: 30000lbs
- v. Max. Operating speed of CT: 220ft/min
- vi. Guide radius : 72"
- vii. Reel capacity: : 1", 1-1/4", 1.5" Length: 2000m
- viii. Stripper
- ix. BOP

4.3.2 NITROGEN PUMPING UNIT

Self-propelled & Self-contained (i.e. composite unit with Liquid Nitrogen Tank with pumper) mounted on an Oil field truck capable of pumping and vaporizing along with a storage tank of liquid nitrogen.

The bidder should provide all the necessary surface connections for smooth operation of each job.

Specification

- i. Max. Nitrogen Pumping capacity: 180,000SCFH (5,000 m³/hr.)
- ii. Min. Nitrogen pumping capacity: 21,000SCFH (590 m³/hr.)
- iii. Max. allowable working pressure:10000 psi
- iv. Storage Tank: > 7 KL
- v. Overall dimension (L×W×H)mm: 5000×2500×2500
- vi. Total weight: 11T (dry weight)
- vii. Heat recovery vaporizer working capability:
 - a. Max. pressure: 10000PSI
 - b. Max. capacity: 180K SCFH
- viii. Discharge nitrogen temperature under maximum pressure and maximum capacity: 86°F - 113°F (30°C~45°C)
- ix. Liquid Nitrogen Triplex Pump
 - ❖ The pump should be capable of delivering:
 - ❖ Maximum Capacity: 180,000 SCFH (85 m³/min) of gaseous
 - ❖ Nitrogen equivalent LN₂
 - ❖ Maximum Pressure: 10,000 Psi.

4.3.3 Multi-purpose Pumping Unit (MPPU)

Oil Field Truck Mounted Multi-Purpose Pumping Unit complete with Blender & Filtration unit with a 10 Kl capacity tank and necessary piping, fittings & tools. Loading & Supercharging pumps suitable for the main Triplex pump shall also be fitted with the unit. The bidder should provide all the necessary surface connections for smooth operation of each job. The Fluid Pumping System should meet the following minimum requirement:

Pumping Unit:

- Horizontal, single acting triplex plunger pump.
- The pump shall be suitable for handling water, saline water, different acids, crude oil, HSD etc.
- All piping shall be suitable for acid service.

Fluid Tanks:

- Tank equipped with hydraulic driven stirrer / agitator.
- The tank shall have a coat of corrosion resistance paint or liner on the inner surface to protect against acid and other corrosive material.
- Level measurement system shall be provided.

Specification

- i. Acid Tanker- 10KI Capacity
- ii. Triplex Pump-
 - a. Max. Working pressure-10,000 psi
 - b. Discharge rate- >75GPM at 5000 psi
- iii. Transfer pump:
 - a. Capacity - > 5 M³/Hr.
 - b. Head – > 10 METER
 - c. Pipe Suction D_{ia}- > 32 mm
 - d. Discharge D_{ia}- > 25mm

4.3.4 ACID TANKER & TRANSFER PUMP

Acid Tanker

Capacity: 10 KI

Acid Transfer Pump

- Suitable for transferring acid from static tanks (Ground position) to an elevated tank.
- The pump shall have the following specifications:
 - ✓ Discharge Rate: > 5 M³/hr.
 - ✓ Head: > 30 ft.

RESPONSIBILITY MATRIX			
No	Description	Responsibility	
		Company	Contractor
1.	Intimation for Mobilization of Unit. by e-mail- 24 hr before mobilization	√	X
2.	Intimation for Job cancellation or deferred by e-mail - 12 hr. before mobilization	√	X
3.	Activity to be performed intimation by e-mail 24 hr. before unit mobilization.	√	X
4.	Mobilization of Units along with Tools & tackles.	X	√
5.	Required PPE for acid & Liquid Nitrogen handling	X	√
6.	PTW issue	√	X
7.	Chiksen / hose Connection & end Flanges with ring/gasket	X	√
8.	Supply of Chemical / Acid / HSD for job	√	X
9.	Chemical / Acid transfer to Unit	X	√
10.	Area cleaning if Acid or diesel is spilled	X	√
11.	Supply of Water & Power	X	√
12.	Lighting facility during nighttime	X	√
13.	Supply of Air if required	X	√

5 CASING ACCESSORIES

5.1. SCOPE OF SUPPLY (SOS) & TECHNICAL SPECIFICATION (TS):

SCOPE OF SUPPLY (SOS) & TECHNICAL SPECIFICATION (TS)		
Sr. No.	DESCRIPTION	UOM
1	<p>SIZE 9 5/8" ANTI-ROTATIONAL CEMENT FLOAT COLLAR, PROVIDED WITH SINGLE POPPET VALVE, PDC DRILLABLE, SUITABLE FOR USE WITH 9 5/8" OD, 40 PPF, K-55 CASING WITH BTC BOX UP X PIN DOWN THREAD CONNECTION. MATERIAL K-55</p> <p>COMPRISING OF FOLLOWING CEMENT PLUGS:</p> <p>SIZE 9 5/8" ANTI-ROTATIONAL TOP RUBBER CEMENTING PLUG, PDC DRILLABLE, SUITABLE FOR 9 5/8" 40 PPF CASING</p> <p>SIZE 9 5/8" ANTI-ROTATIONAL BOTTOM RUBBER CEMENTING PLUG, PDC DRILLABLE, SUITABLE FOR 9 5/8" 40 PPF CASING</p>	No.
2	<p>SIZE 9 5/8" CEMENT FLOAT SHOE, SINGLE POPPET VALVE, PDC DRILLABLE, SUITABLE FOR 9 5/8", K-55, 40 PPF CASING WITH BTC BOX UP THREAD CONNECTION. MATERAIL: K-55</p>	No.
3	<p>SIZE 7" CONVENTIONAL CEMENT FLOAT COLLAR, PROVIDED WITH SINGLE POPPET VALVE, PDC DRILLABLE, SUITABLE FOR USE WITH 7" OD, 29 PPF, L-80 CASING WITH BTC BOX UP X PIN DOWN THREAD CONNECTION. MATERIAL L-80</p> <p>COMPRISING OF FOLLOWING CEMENT PLUGS:</p> <p>SIZE 7" CONVENTIONAL TOP RUBBER CEMENTING PLUG, PDC DRILLABLE, SUITABLE FOR 7", 29 PPF CASING. INSERT MATERIAL: ALLUMINIUM CORE</p> <p>SIZE 7" CONVENTIONAL BOTTOM RUBBER CEMENTING PLUG, PDC DRILLABLE, SUITABLE FOR 7", 29 PPF CASING. INSERT MATERIAL: ALLUMINIUM CORE</p>	No.
4	<p>SIZE 7" CEMENT FLOAT SHOE, SINGLE POPPET VALVE, PDC DRILLABLE, SUITABLE FOR 7", L-80, 29 PPF CASING WITH BTC BOX UP THREAD CONNECTION. MATERAIL: L-80</p>	No.
5	RIGID CENTRALIZER SIZE: 9 5/8" X 13 3/8" Casing Centralizer with Stop Collar and Pins/Nails	No.
6	9-5/8" X 12-1/4" NON-WELD BOW TYPE Casing Centralizer with Stop Collar and Pins/Nails	No.
7	RIGID CENTRALIZER SIZE: 7" X 9 5/8" Casing Centralizer with Stop Collar and Pins/Nails	No.
8	7" X 8 1/2" NON-WELD BOW TYPE Casing Centralizer with Stop Collar and Pins/Nails	No.
9	CASING ACCESSORIES, 7" CSG X 8 1/2" HOLE, Hinged Non-Welded Bow Spring Turbolizer - Centralizers	No.
10	7" X 8-1/2" Single Body NON-WELD BOW TYPE Casing Centralizer with Stop Collar and Pins/Nails	No.
11	CASING ACCESSORIES, 7" CSG X 8 1/2" HOLE, WIRE SCRATCHERS	No.
12	CASING ACCESSORIES, 7" CSG X 8 1/2" HOLE, CABLE WALL CLEANER	No.
15	Casing Thread Lock Compound (Baker Lock)	Kit

NOTE:

- All materials shall confirm to, and be consistent with, referenced oil industry standards and as per API standards (API5CT & API Q1, ISO 9001), and as specified above.
- Design criteria should be documented to include methods, assumptions, calculations, and design requirements. Design requirements shall include but not be limited to those criteria for size, test and operating pressure, materials, environmental and API5CT & API Q1, ISO 9001 / ASME / Industrial specification and other pertinent requirements upon which the design is to be based. Manufacturer should also share detail specification with installation procedure/manual and should have permanent unique identification.
- All materials provided shall give Guarantee for Performance, qualified and capable of withstanding rated working pressure at rated temperature without deformations. Materials shall be capable of functioning throughout the temperature range for which the material is rated and shall confirm to relevant certification requirements and other API standards (API5CT & API Q1, ISO 9001).
- Material / Equipment qualification testing for Tensile Property, **Impact** toughness, Hardness Requirement, Chemical composition, and heat treatment shall govern the manufacturing process and as per API standards (API5CT & API Q1, ISO 9001).
- Measurement standards and measuring equipment shall be controlled and calibrated by SONG as per manufacturer's written specifications or procedures and should have permanent unique identification.
- API Monogram is to be embossed on the supplied items. Material class certificated /MTC shall be provide.
- All Material Detailed Design Catalogue and manual to be shared for technical specification confirmation with bid.
- Storing, packing, and shipping should be as per API standards.
- Logistics of all material upto Sunpetro Well Site will be in Contractors Scope.
- In addition to above, SunPetro reserves right to for carrying out Inspection by SunPetro representatives at Bidders premises before dispatch.
- **Paint Stencil**
Tenderer shall stencil an identification marking in white paint on the outside surface of each goods with the following marking sequence:
 - i. Company Name: SUNPETRO
 - ii. Company Item Code (Will be mentioned in PO)
 - iii. Company Purchase Order Number.
 - iv. API Monogram, whenever applicable
 - v. Size in inches
 - vi. Weight in lb./ft
 - vii. Grade
 - viii. Thread Type
 - ix. Month and Year of Production

REVISED PRICE SCHEDULE

Bidder has to provide price of all items as indicated in price schedule below for all the services. Provide separate price bids for Drilling Rig:

Sr No	Description	Evaluation quantity	Unit Rate (INR)	Additional Rate per Meter for Integrated Drilling Services
1	Mobilization of Integrated Drilling Services (Lump sum rate)	1		
2	De-mobilization of Integrated Drilling Services (Lump sum rate)	1		
3	<p>Lump sum rate for drilling up to 1100 M MD well having 2 casing policy using the Integrated services (Rig + Cementing + Mud + Drill Bits + Casings + Casing Accessories + Well Head & X-Mass Tree Assembly + Standard Logging Suit (High Resolution Latro Logging + Compact COMBO + Gamma Ray + Six Arm Caliper), 12 ¼" hole- 500 m MD 8 ½" hole – 500 to 1100 m MD</p> <p>(Inclusive of all Drilling Tangible Materials)</p>	1		<p>a. 12 ¼" hole beyond 500 m MD:_____</p> <p>b. 8 ½" hole beyond 1100 m MD to 1500 m MD:_____</p> <p>c. Cost of CBL, VDL, Gama Ray & Cement Channel Analyser per run:_____</p> <p>d. per meter perforation cost for 4 ½" gun, 5 SPF, using deep penetration RDX charges (70") using CCL:_____</p> <p>e. per meter perforation cost for 3 3/8" gun, 5 SPF, using deep penetration RDX charges (40") using CCL:_____</p>
4	<p>Lump sum rate for drilling up to 1500-1800 M MD well having 2 casing policy using the Integrated services (Rig + Cementing + Mud + Drill Bits + Casings +Casing Accessories+ Well Head & X-Mass Tree Assembly +Standard Logging Suit (High Resolution Latro Logging + Compact COMBO + Gamma Ray + Six Arm Caliper, 12 ¼" hole- 600 m MD 8 ½" hole 600 to 1800 m MD</p> <p>(Inclusive of all Drilling Tangible Materials)</p>	1		<p>a. a.12 ¼" hole- beyond 600 m MD:_____</p> <p>b. 8 ½" hole beyond 1800 m MD:_____</p> <p>c. Cost of CBL, VDL, Gama Ray & Cement Channel Analyser per run:_____</p> <p>d. per meter perforation cost for 4 ½" gun, 5 SPF, using deep penetration RDX charges (70") using CCL:_____</p> <p>e. per meter perforation cost for 3 3/8" gun, 5 SPF, using deep penetration RDX charges (40") using CCL:_____</p>

5	<p>Lump sum rate for drilling up to 1800-2000 M MD well having 3 casing policy using the Integrated services (Rig + Cementing + Mud + Drill Bits + Casings + Casing Accessories+ Well Head & X-Mass Tree Assembly + Standard Logging Suit (High Resolution Latro Logging + Compact COMBO + Gamma Ray + Six Arm Caliper</p> <p>a. 17 ½" hole-600 m MD b. 12 ¼" hole- from 600 to 1200 m MD c. 8 ½" hole – from 1200 to 2000 m MD</p> <p>(Inclusive of all Drilling Tangible Materials)</p>	1		<p>a. 17 ½" hole beyond 600 m MD:_____</p> <p>b. 12 ¼" hole beyond 1200 m MD:_____</p> <p>c. 8 ½" hole beyond 2000 m MD:_____</p> <p>d. Cost of CBL, VDL, Gama Ray & Cement Channel Analyser per run:_____</p> <p>e. per meter perforation cost for 4 ½" gun, 5 SPF, using deep penetration RDX charges (70") using CCL:_____</p> <p>f. per meter perforation cost for 3 3/8" gun, 5 SPF, using deep penetration RDX charges (40") using CCL:_____</p>
6	<p>Lump sum rate for providing required directional drilling equipment & personal services for from KOP</p> <p>a. 12 ¼" HOLE :500 MD b. 8 ½" HOLE:500 MD</p>		a. b.	<p>a. 12 ¼" Hole per meter beyond 500 m:_____</p> <p>b. 8 ½" Hole per meter beyond 500 m:_____</p>
7	Operating Rate [R-I (Rate- 1)] (Including Integrated Drilling Services)	1		
8	Standby Rate [R-II (Rate-2)]- (Including Integrated Drilling Services)	1		
9	Operating Day Rate (Rig, Rig Services And Rig Crew Only)	1		
10	Stand By Day Rate (Rig, Rig Services And Rig Crew Only)	1		
11	Inter location charges (cluster movement within 100 m cellar to cellar)	1		
12	Inter location charges (101m-5km)	1		
13	Inter location charges (5.01Km – 10km)	1		
14	Inter location charges (10.01km-15km)	1		
15	Inter location charges (15.01km-30 km)	1		
16	Inter location charges (per km above 30-50 km).	1		
17	Rig move per km beyond 50 Km	1		
Drill Bits				
1	12 1/4" TCR Drill Bit, IADC- 1 1 7	1		
2	12 1/4" TCR Drill Bit, IADC- 1 3 7	1		
3	8 ½" TCR Drill Bit, IADC- 1 1 7	1		

4	8 ½” TCR Drill Bit, IADC- 1 3 7	1		
5	8 ½” TCR Drill Bit, IADC- 4 1 7	1		
6	8 ½” TCR Drill Bit, IADC- 4 3 7	1		
7	12 ¼” PDC Drill Bit	1		
8	8 ½” PDC Drill Bit	1		

LAND ACQUISITION, CIVIL & GREEN BELT WORKS

	Description	UOM	Price	Remarks
1	Route Survey for Pipeline and Road	Km		
2	Land Survey, making plot plan with co-ordinates and demarcation of land at drill site	Acres		
3	Obtaining Consent of Landowners for ROU (Right of Use)	Km		
4	Execution of ROU Agreements & demarcation of ROU Route	Km		
5	Rates for Civil Work for Well Site (Which includes Civil Work, Well site chain link fencing, Well Site Gates, 500 micron LDPE Sheet for Waste Pit, Covered Soak Pit, Security Shed). <i>Ref. Annexure-I, II, III, IV, V</i>	Lump sum	a. b.	a. For 80x80 sq. meter b. For per sq. meter above 80x80 sq. meter
6	Rates for Civil Work for Approach Road	Lump sum	a. b.	a. For 10-meter Approach Road with 5-meter width b. For per meter Approach Road with 5-meter above 10-meter with 5-meter width

WELL INTERVENTION & STIMULATION SERVICE

No	Description	UOM	Qty	Total Amount in INR	Remarks
1	Coil Tubing Unit	Lump Sum	1		Rates inclusive of all (Logistics required, Manpower, Unit, Operations, Mob-Demob, etc.)
2	Nitrogen Pumping Unit Including Liquid Nitrogen Tank	Lump Sum	1		
3	Acid Tanker (4 To 6 KI Capacity) With Acid Transfer Pump	Lump Sum	1		
4	Acid Pumping Unit with Mixing Tank	Lump Sum	1		
5	Multi-Purpose Pumping Unit With > 10 KI Water Tank	Lump Sum	1		

Optional Logging Tools Cost

Sr No	Description of service	UOM	UNIT PRICE	Total
1	Dipole Sonic Tool	Per Run		
	Nuclear magnetic Resonance Log	Per Run		
	Side Wall Core with GR (24 samples)	Per Run		
	Dynamic Formation Tester Tool with GR (Modular)	Per Run		
	Gamma Ray Spectrometry Tool	Per Run		
	Full Bore Resistivity Imager	Per Run		
2	3D Resistivity	Per Run		
3	Elemental Concentration Log	Per Run		
4	Cased hole Reservoir Saturation Tool (RST / RMT-GR)	Per Run		
5	Free Point Indicator	Per Run		
6	Bridge Plug /Packer/ Cement Retainer Setting Tool including junk basket	Per Setting of B/ P / packer / C/R		
7	Radial Cutting Torch	Per Run		
8	Motorized Coring Tool (24 samples)	Per Run		
9	Dual Packer Module of – Formation Tester- 350° F	Per Run		
10	Insitu Fluid Analyzer Module of Formation tester	Per Run		
11	Perforation for Cement Squeeze	Per Run		
12	Tubing Puncture	Per Run		
13	Tubing Cutter	Per Run		
14	Casing Cutter	Per Run		
15	Split shot Cutter	Per Run		
16	Colloidal/ Severing Service	Per Run		
17	Back-off Services	Per Run		

Note:

- The rates are inclusive of GST. GST shall be extra at actual.
- The above Integrated Services Rates must be inclusive of all consumables (tangible drilling materials) required in Drilling Well for define range of depth and it is to be supply as per mention Technical Specification and Scope.
- The above quantity is for evaluation purpose only. Payment shall be made as per actuals.
- If well is drilled less than 1100 M, considering 2 casing policy, charges for 1100 m will be paid.
- If well is drilled in between 1500 M-1800 M ranges using 2 casing policy, charges for 1800 M will be paid.
- If well is drilled in between 1800 M-2000 M ranges using 3 casing policy, charges for 2000 M will be paid.
- If in special case Well design requirement changes then respective additional drilling rate per meter is applicable.
- Drill Bit shall be charge on consumption basis. Running hours shall be considering as per previous OEM bit running history and recommendation.
- Casing size is as per below:

Sr nos	HOLE SIZE	CASING SIZE
1	17 ½"	13 3/8"
2	12 ¼"	9 5/8"
3	8 ½"	7" OR 5 ½" Or 5 ¾"

Note: Casing size may change considering well design requirement but limited to hole size & casing requirement mention above table.

10. Payment Terms:

Payment of the correct / undisputed / Certified invoice supported with job sheet / field ticket / any other relevant document, which is jointly signed by Engineer In-charge/ Company representative along with the representative, shall be made within Thirty (30) working days' period after receipt of invoice unless the Company disputes the invoice or a part thereof.

a) Milestone payment for two casing policy wells, as per below:

- 5% of payment shall be released at the conductor casing.
- 35% of payment shall be released at the end of 1st casing.
- 35% of payment shall be released at the end of 2nd casing.
- 25% payment to be released on completion of well.

b) Milestone payment for three casing policy wells, as per below:

- 5% of payment shall be released at the conductor casing
- 20% of payment shall be released at the end of 1st casing
- 25% of payment shall be released at the end of 2nd casing
- 25% of payment shall be released at the end of 3rd casing
- 25% payment to be released on completion of well.