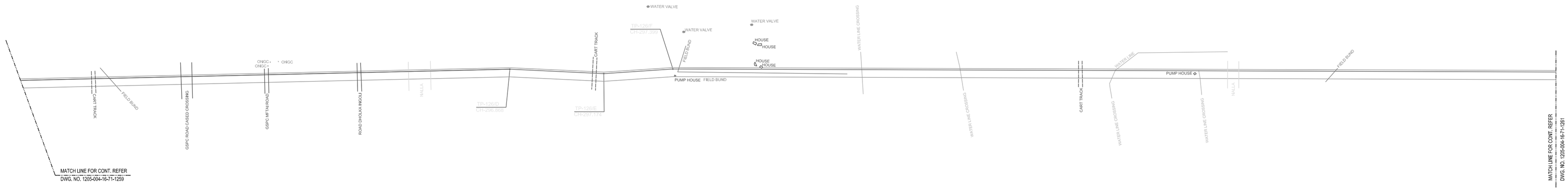
TURNING POINT (TP)		TP-126/D	TP-126/E	TP-126/F	
DEFLECTION ANGLE ("_" '_" ")		4°00'0"R	6°30'0"L	4°00'0"R	
DISTANCE BETWEEN TP's (m)	1593.487	306.065	225.510	2874.938	
STATE & DISTRICT	DHOLKA		AHEMADABAD		GUJARAT

SURVEY DETAILS



PLANIMETRY

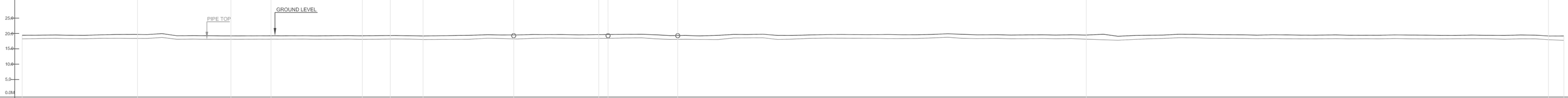
SCALE :-

ALONG LINE 1:5000
ACROSS LINE 1:5000

GROUND PROFILE

SCALE :-

HORIZONTAL 1:5000
VERTICAL 1:500



REFERENCE DATUM ▼

GROUND LEVELS(m)

20.111 20.150 20.200 20.130 20.090 20.250 20.350 20.380 20.340 20.650 19.960 20.000 19.970 19.910 19.920 19.930 19.940 19.950 19.960 19.920 19.980 20.000 19.950 19.9950 20.040 19.980 19.890 19.960 20.030 20.100 20.300 20.200 20.220 20.350 20.340 20.380 20.250 20.310 20.380 20.400 20.440 20.270 20.000 20.070 19.920 20.100 20.390 20.350 20.460 20.050 20.050 20.210 20.340 20.370 20.340 20.310 20.370 20.280 20.290 20.380 20.610 20.410 20.250 20.290 20.170 20.240 20.270 20.170 20.260 20.180 20.450 19.790 20.020 20.120 20.180 20.440 20.410 20.330 20.290 20.270 20.140 20.380 20.230 20.160 20.140 20.230 20.110 20.120 20.120 20.220 20.190 20.150 20.060 20.180 20.100 20.060 20.200 20.140 19.870 19.879

PIPE TOP LEVELS(m)

18.943 19.040 19.100 19.000 18.980 19.100 19.120 19.070 19.080 19.410 18.820 18.880 18.800 18.800 18.815 18.830 18.845 18.855 18.870 18.810 18.820 18.880 18.790 18.850 18.910 18.860 18.730 18.750 18.770 18.800 19.150 19.050 18.900 19.100 19.230 19.190 19.130 19.090 19.110 19.230 19.280 18.950 18.750 18.810 18.740 18.720 19.220 19.270 19.300 18.740 18.860 19.070 19.190 19.170 19.130 19.150 19.030 19.040 19.070 19.250 19.470 19.110 19.030 19.100 18.980 19.000 19.060 18.980 19.050 18.830 18.850 18.500 18.740 18.560 19.070 19.320 18.280 19.140 19.100 19.080 19.000 19.050 18.990 18.950 18.950 19.020 18.950 18.980 18.950 19.040 18.950 18.920 18.830 18.980 18.990 18.980 18.840 18.950 18.960 18.850 18.449

DISTANCE BETWEEN LEVEL POINTS (IN METRES)

58.0 48.0 48.0 49.0 47.0 48.0 61.0 47.0 47.0 49.0 49.0 48.0 59.0 50.0 48.0 47.0 48.0 58.0 48.0 49.0 49.0 46.0 57.0 49.0 48.0 47.0 48.0 52.0 47.0 60.0 48.0 49.0 48.0 47.0 47.0 58.0 45.0 48.0 49.0 60.0 48.0 46.0 49.0 47.0 60.0 48.0 48.0 48.0 49.0 48.0 48.0 59.0 48.0 47.0 47.0 60.0 49.0 47.0 48.0 49.0 50.0 47.0 62.0 48.0 48.0 50.0 48.0 47.0 49.0 56.0 48.0 49.0 48.0 50.0 49.0 48.0 60.0 49.0 49.0 50.0 48.0 48.0 48.0 48.0 60.0 47.0 49.0 47.0 47.0 60.0 47.0 48.0 48.0 48.0 50.0 60.0 49.0 49.0 47.0 46.0

SURFACE /TERRAIN DETAILS: CULTIVATED LAND WITH CROP OF WHEAT &COTTON (I); VEGETABLES (II); NILGIRI GUAVA PLANTATION & HORTI CULTURAL LAND; CULTIVATED LAND WHEAT (I)

CLASS/ZONE LOCATION: NOT APPLICABLE

DESIGN FACTOR: 0.72

PIPELINE DETAILS

MATERIAL: API 5L Gr. X-70, HSAW

O.D.X. WALL THICKNESS (mm x mm): 610, 7.1

PIPELINE DETAILS

CUMULATIVE CHAINAGE (KM METRES) (000 + 000)

295.274 295.332 295.380 295.428 295.477 295.524 295.572 295.633 295.680 295.727 295.776 295.825 295.873 295.932 295.982 296.030 296.077 296.125 296.183 296.231 296.280 296.329 296.375 296.432 296.481 296.529 296.576 296.624 296.676 296.723 296.783 296.831 296.880 296.928 296.975 297.022 297.080 297.125 297.173 297.222 297.282 297.330 297.378 297.425 297.472 297.532 297.580 297.628 297.676 297.725 297.773 297.821 297.880 297.928 297.975 298.022 298.082 298.131 298.178 298.228 298.275 298.325 298.372 298.434 298.482 298.530 298.580 298.628 298.675 298.724 298.780 298.828 298.877 298.925 298.975 299.024 299.072 299.132 299.181 299.230 299.280 299.328 299.376 299.424 299.472 299.532 299.579 299.628 299.675 299.722 299.782 299.829 299.877 299.925 299.973 300.023 300.083 300.132 300.181 300.228 300.274

SECTIONAL CHAINAGE KM METERS: 295.274 KM; 296.000 KM; 297.000 KM; 298.000 KM; 299.000 KM; 300.000 KM; 300.274 KM

SPECIAL PROVISIONS

PIPE LINE COVER MINIMUM (METRES): 1.0; 1.2; 1.0; 1.2; 1.0; 1.2; 1.0; 1.2; 1.0; 1.2; 1.0; 1.2; 1.0

CROSSINGS: CART TRACK 295.645 295.677 295.684; GSPC ROAD CASED CROSSING 295.933; GSPC MP 74 ROAD 296.077 296.087; ROAD DHOLKA RAGNA 296.371 296.383; NALLA 296.608 296.673; CART TRACK 297.137 297.162; CART TRACK 298.715 298.727; NALLA 299.608 299.673

SPECIAL INSTALLATION FITTING/MARKERS: W; W; W; W; W; W; A; W; K; W

COATING SCHEME: LINE PIPE: THREE LAYER POLYETHYLENE COATING (3LPE) (MIN. 2.5 mm THK) AS PER SPEC. No. 6-71-0041 AND FIELD JOINT COATING HEAT SHRINK SLEEVE AS PER SPEC. NO. 6-71-0044

CATHODIC PROTECTION INSTALLATIONS: REFER GENERAL NOTE-4

SUB-SOIL DETAILS

SOIL RESISTIVITY (OHM-M): 2.045; 1.649; 1.810; 2.140; 2.385; 1.357; 2.300; 1.904; 1.725; 0.561; 42.904

SOIL STRATIFICATION DEPTH IN (m): REFER GENERAL NOTE-5; REFER GENERAL NOTE-5

TOPOGRAPHIC SYMBOLS

PROPOSED PIPE LINE; EXISTING PIPE LINE; TURNING POINT; INTERMEDIATE POINT; METALLED ROAD; UNMETALLED ROAD; RAILWAY LINE; STREAM > 5m WIDTH; STREAM <5m WIDTH (DRY); STREAM (PERENNIAL) > 5 m; CANAL (DESCRIBED); BRIDGE; POWER LINE; TELEPHONE LINE; FENCES; GROUND PROFILE; DAM (DESCRIBED); WATER TANK, LAKE OR RESERVOIR; QUARRY; SWAMP OR MARSH; MUD; WELL (DESCRIBED/TUBEWELL; PLACE OF WORSHIP; MONUMENT; HUTS (TEMPORARY); HUTS (PERMANENT); GRAVES; TREE

PIPELINE SYMBOLS

CATHODIC PROTECTION TEST STATION; POTENTIAL GRADIENT CONTROL MAT (PGCM); TRANSFORMER RECTIFIER; AC INTERFERANCE MITIGATION Zn RIBBON PARALLEL TO PIPE; ANODE GROUND BED; EXISTING CABLE/ PIPELINE CROSSING; HOT BEND (R=6D); CS CODUIT FOR OFC; OFC PULLING PIT; UNCASED CROSSING; CASED CROSSING; CONTINUOUS CONCERETE WEIGHTING; GEOTEXTILE BAGS; INTERMEDIATE SCRAPER STATION; INSULATING JOINT; SCRAPER TRAP; KM MARKER; PIPE LINE WARNING SIGN; AERIAL MARKER; NAVIGABLE WATER WAY PIPE LINE WARNING SIGN; DIRECTION MARKER; HDPE DUCT FOR OFC; SECTIONALISING VALVES; ZINC GROUNDING CELL

SOIL SYMBOLS

INORGANIC CLAY WITH HIGH PLASTICITY; INORGANIC CLAY WITH MEDIUM PLASTICITY; CLAYEY SAND; SILTY SAND POORLY GRADED SAND SIL MIXTURES; INORGANIC CLAY WITH LOW PLASTICITY; INORGANIC SILTY CLAY WITH MEDIUM ELASTICITY; WELL GRADED SAND; INORGANIC CLAY WITH LOW PLASTICITY; ROCK; WELL GRADED GRAVELS; SOFT ROCK WITH WANERS; WHITE LIME WITH WANGARS; POORLY GRADED SAND; CLAY WITH KARKAR BASALT; POORLY GRADED GRAVELS; SILTY GRAVELS,POORLY GRADED; CLAYEY GRAVELS,POORLY GRADED; CLAY WITH KARKAR; WEATHERED BASALT; CLAY; SILTY SAND; SILTY CLAY; SANDY CLAY WITH KARKAR; MEDIUM WITH BOULDERS; WEATHERED ROCK; MEDIUM; RED CLAY WITH KARKAR; SANDY MEDIUM; BED ROCK; HARD ROCK; MEDIUM WITH GRAVELS; EXPOSED ROCK; GREYISH CLAY; BLACK COTTON SOIL; EXPOSED WEATHERED BASALT; SILTY CLAY WITH MEDIUM; CLAY WITH MEDIUM; BLACK COTTON SOIL WITH KARKAR; SANDY GRAVEL; BLACK COTTON SOIL WITH KARKARS; SILTY CLAY WITH SAND; SANDY CLAY; RED ROCK; CLAYEY SILT; SILTY CLAY WITH KARKARS; SOIL WITH KARKARS; SILTY SAND WITH KARKARS; CLAYEY SILT WITH KARKARS; BLACK SILTY CLAY; SANDY SILT; SHALE; EXPOSED WEATHERED ROCK; CLAY WITH GRAVELS

GENERAL NOTES :-

1. ALL DIMENSIONS ARE EXACT AS PER FIELD SURVEY.
2. FOR ALL CROSSINGS, THE THICKNESS OF CASING PIPES PROVIDED AS PER SPECIFIC REQUIREMENTS & THE SAME IS TABULATED IN B.O.M. ALL THE CROSSINGS EXECUTED AS PER RELEVANT OB STANDARD/DRAWINGS.
3. LOCATION OF SLOPE BREAKERS ARE PROVIDED AS PER STANDARD & AS PER INSTRUCTIONS OF ENGINEER-IN-CHARGE.
4. INSTALLATION OF CATHODIC PROTECTION FACILITIES PROVIDED AS PER DRAWINGS/ DOCUMENTS SUBMITTED BY CONTRACTOR AND APPROVED BY COMPANY.
5. FOR DETAILS REGARDING SOIL STRATIFICATION AND SOIL RESISTIVITY ALONG THE ROUTE, REFER M/S PETRO IT'S SOIL INVESTIGATION & RESISTIVITY REPORT.
6. ANTI BUOYANCY CONTROL (CONCRETE WEIGHT COATING) AND GEOTEXTILE BAGS, IF REQUIRE, SHALL BE DECIDED AT SITE (BESIDE THE LOCATION AS SHOWN IN ALIGNMENT SHEET) CASE TO CASE BASIS AND AS PER INSTRUCTION OF ENGINEER-IN-CHARGE.

NOTES :-

1. ALL DIMENSIONS ARE IN "METERS" AND CORRESPOND TO MEAN SEA LEVEL (MSL).
2. 0.00 CHAINAGE CORRESPONDS TO INSULATING JOINT AT VADINAR.
3. ANTI BUOYANCY MEASURES, IF REQUIRED, SHALL BE DECIDED AT SITE IN CONSULTATION WITH ENGINEER-IN-CHARGE.
4. THE EXTENT OF CASED CROSSING PROVIDED AS PER INSTRUCTION OF ENGINEER-IN-CHARGE.

BILL OF MATERIAL FOR THIS DRAWING

610	7.1	3LPE	5000	K.M. POST	2
				DIRECTION MARKER	1
				AERIAL MARKER	1
			5000	INSULATING JOINTS	
				HOT BENDS	
				NAVIGABLE WATERWAY	
762	6.4		35.617	WARNING MARKER	8
168.3	6.4		35.617	OFC JOINT PIT	2
				CP TEST STATION	7

REFERENCE DRAWINGS

TITLE	NUMBER
CROSSING	CHAINAGE(m)
CART TRACK	295648
ROAD	295951 VBPL/CC/AB/SP II/20
GSPC ROAD	296081
ROAD	296377
NALLA	296,574
CART TRACK	297143
CART TRACK	298725
NALLA	298250

AS BUILT DRAWING			
DESCRIPTION	ECIL	EIL	BORL

AS BUILT DRAWING

इंजीनियर्स इंडिया लिमिटेड (भारत सरकार का उपक्रम) ENGINEERS INDIA LIMITED (A Govt. of India Undertaking)

BHARAT OMAN REFINERIES LIMITED

ESSAR ESSAR CONSTRUCTIONS (INDIA) LIMITED

बीना रिफायनरी परियोजना (वाडीनार बीना पाइपलाइन) — BINA REFINERY PROJECT (VADINAR-BINA PIPELINE)

एलाइनमेन्ट शीट वाडीनार से बीना चेनेज 295.274 से 300.274 कि.मी. — ALIGNMENT SHEET VADINAR TO BINA CHAINAGE 295.274 KM TO 300.274 KM

SCALE	JOB NO.	UNIT	DEPT.	SECT.	DWG. NO.	REV.
AS SHOWN	12	05	004	16	71 1260	0