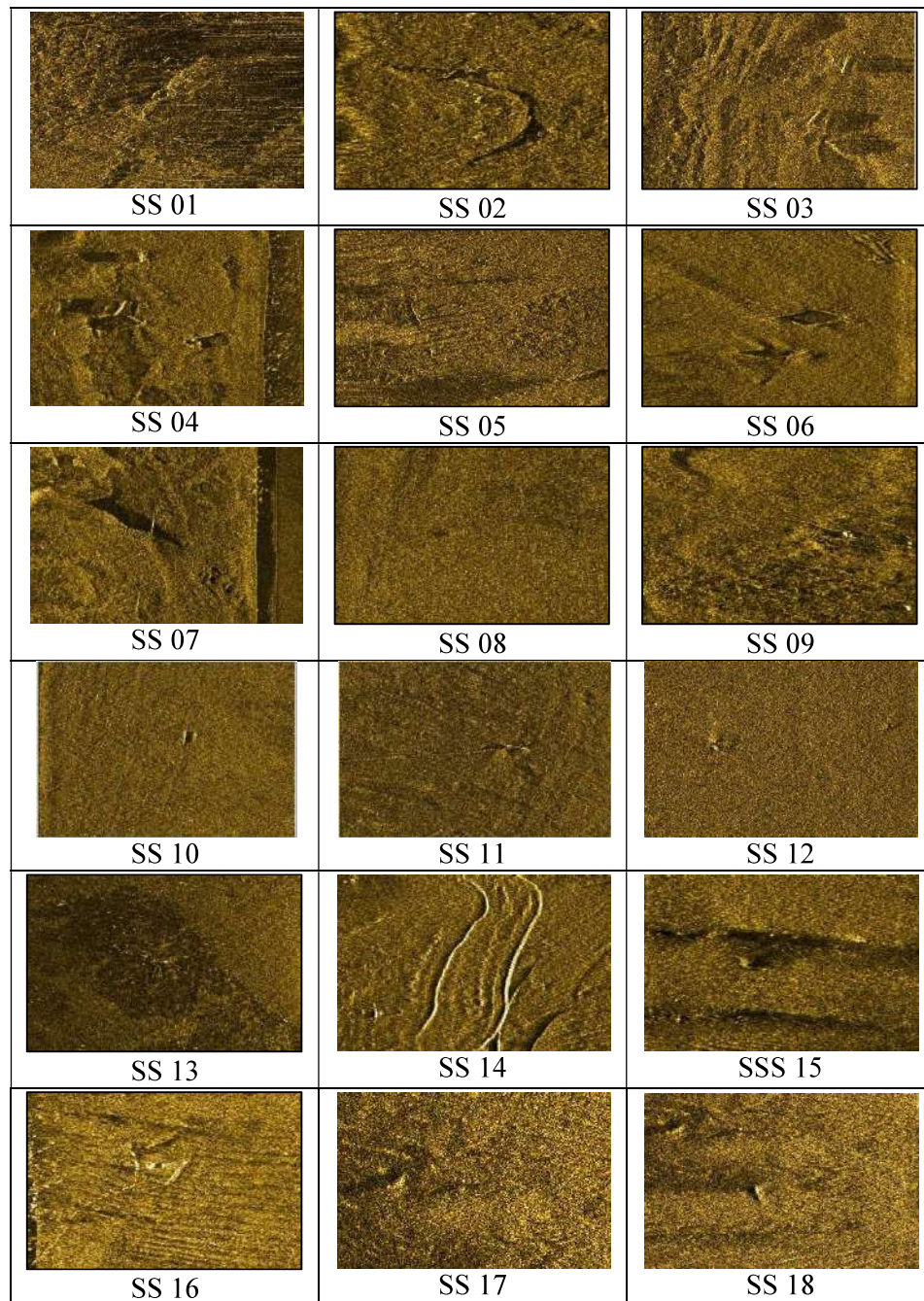


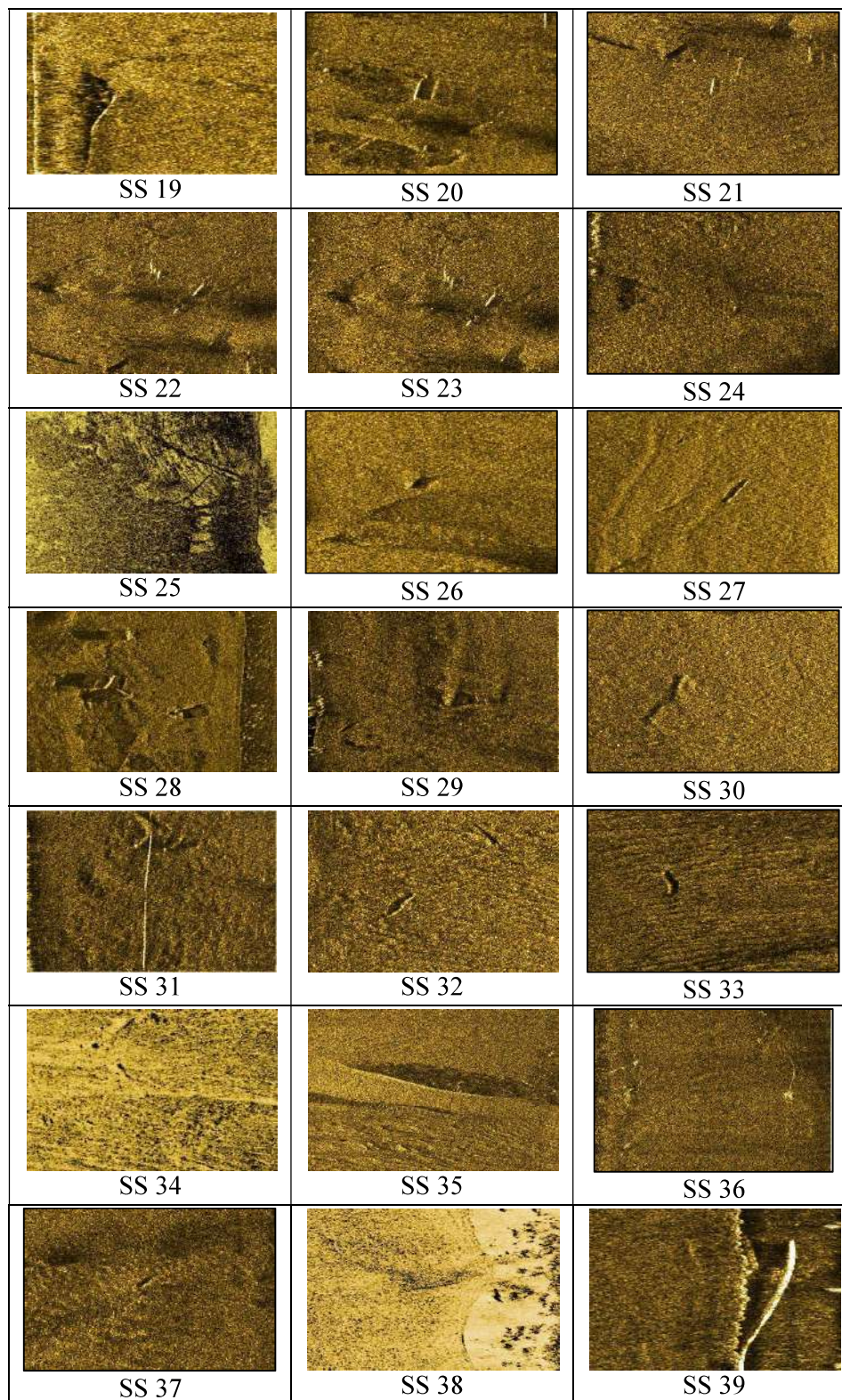
## AII. GPI Results:

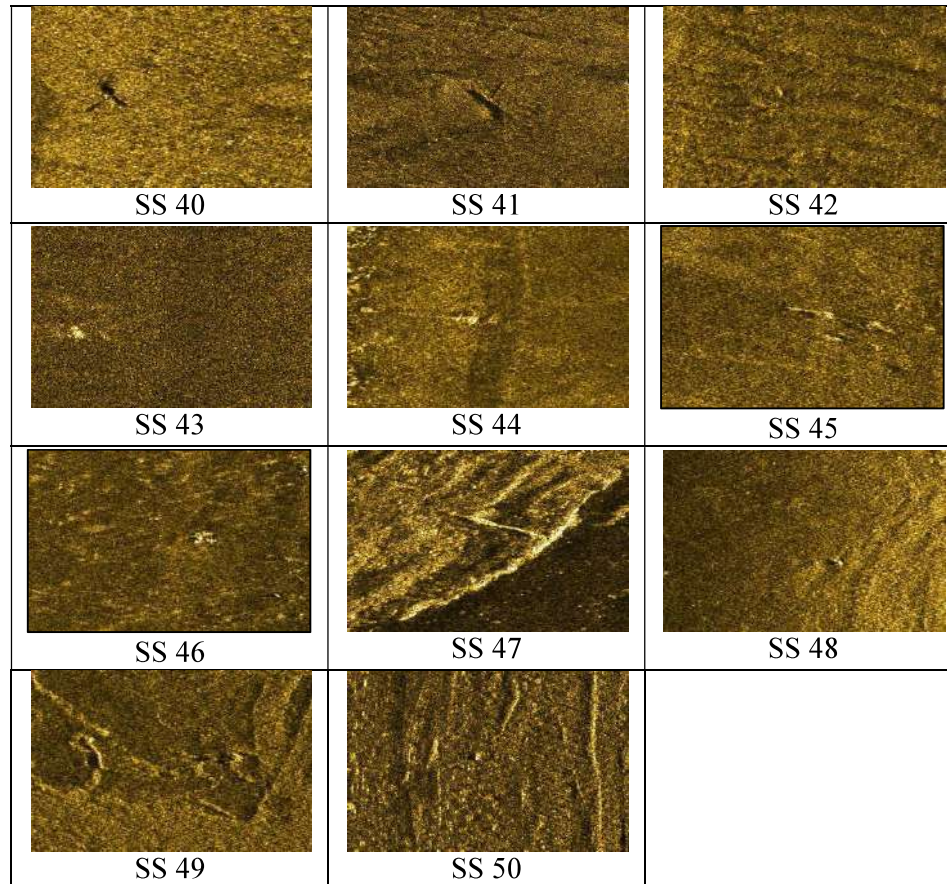
### 5.1. Side Scan Sonar (SSS) Survey Results

The targets/objects namely SS01 to SS92 were identified through SSS survey and are presented in Figs. 11 to 16 and tiles SS01 to SS50. The SSS survey identified target/objects location details are in Table AII.2 along with its remarks.









**Tiles 1: SSS Object/target image from SS 01 to SS 50**

**Table AII.2** Details of the SSS targets/object locations and its remarks

S.No	Target ID	Location	UTM (Zone 42)		Geographic Location		Remark
			X (m)	Y (m)	Latitude	Longitude	
1	SS 1	Location 2	625199.30	2550705.40	23°03'36.6681"N	70°13'19.7566"E	Unknown target; small in size
2	SS 2	Location 4	625012.30	2549963.00	23°03' 12.5814"N	70°13'12.9686"E	Linear feature; Could be chain
3	SS 3	Location 13	625140.30	2549037.00	23°02'42.4398"N	70°13'17.1942"E	Unknown target; partially buried and scattered
4	SS 4		625147.90	2549025.10	23°02'42.0509"N	70°13'17.4577"E	Unknown target; partially buried and scattered
5	SS 5	Location 15	625597.20	2548737.80	23°02'32.5878"N	70°13'33.1579"E	Unknown target; small in size
6	SS 6	Location 16	625388.70	2548574.30	23°02'27.3287"N	70°13'25.785"E	Unknown target; small in size
7	SS 7	Location 18	625360.40	2548152.20	23°02'13.6127"N	70°13'24.6669"E	Small linear target
8	SS 8	Location 19	625652.80	2547914.90	23°02'5.8179"N	70°13'34.869"E	Unknown target; small in size
9	SS 9	Location 20	625366.00	2547871.00	23°02'4.4686"N	70°13'24.781"E	Anchor with rope/chain



10	SS 10	Location 22	625510.80	2547516.10	23°01'52.8904"N	70°13'29.7635"E	Unknown target; small in size
11	SS 11	Location 23	625451.30	2547501.30	23°01'52.4254"N	70°13'27.669"E	Anchor with rope/chain
12	SS 12	Location 25	625724.90	2546602.50	23°01'23.1285"N	70°13'37.0156"E	Unknown target; small in size
13	SS 13	Location 27	626098.40	2545755.90	23°00' 55.5013"N	70°13'49.8854"E	Unknown target
14	SS 14	Location 29	625691.50	2545303.30	23°00' 40.8969"N	70°13'35.4603"E	Unknown target; small in size
15	SS 15	Location 30	625648.60	2544948.10	23°00' 29.36"N	70°13'33.8491"E	Unknown target; partially exposed
16	SS 16	Location 31	625722.7977	2544891.70	23°00' 27.506"N	70°13'36.4386"E	Anchor with rope/chain
17	SS 17	Location 32	625682.80	2544699.80	23°00' 21.2777"N	70°13'34.9774"E	Unknown target; small in size
18	SS 18		625690.40	2544671.20	23°00' 20.3458"N	70°13'35.2359"E	Unknown target; small in size
19	SS 19	Location 34	625807.30	2543847.90	22°59' 53.5461"N	70°13'39.0995"E	Unknown target
20	SS 20	Location 35	625616.80	2543754.00	22°59' 50.5449"N	70°13'32.3816"E	Unknown target; small in size
21	SS 21	Location 37	625605.20	2543574.80	22°59' 44.7218"N	70°13'31.9216"E	Unknown target; partially buried and scattered
22	SS 22	Location 38	625596.80	2543511.40	22°59' 42.6627"N	70°13'31.608"E	Unknown target; partially buried and scattered
23	SS 23		625602.50	2543501.70	22°59' 42.3458"N	70°13'31.8053"E	Unknown target; partially buried and scattered
24	SS 24	Location 39	625700.60	2543433.70	22°59' 40.1083"N	70°13'35.2305"E	Unknown target; small in size
25	SS 25	Location 40	626090.54	2543431.15	22°59'39.9191"N	70°13'48.924"E	Unknown target
26	SS 26	Location 41	625948.20	2543257.00	22°59' 34.2958"N	70°13'43.8739"E	Unknown target; small in size
27	SS 27	Location 42	625663.50	2543288.40	22°59' 35.3942"N	70°13'33.885"E	Unknown; small linear target
28	SS 28	Location 43	625804.40	2543092.40	22°59' 28.9833"N	70°13'38.7756"E	Unknown target; small in size
29	SS 29	Location 44	625681.80	2543020.10	22°59' 26.666"N	70°13'34.4489"E	Unknown target; small in size
30	SS 30		625721.30	2542994.80	22°59' 25.8327"N	70°13'35.8286"E	Unknown target; small in size
31	SS 31	Location 46	625752.30	2542709.60	22°59' 16.5516"N	70°13'36.8335"E	Unknown linear target
32	SS 32	Location 47	625797.20	2542695.30	22°59' 16.0744"N	70°13'38.406"E	Unknown target
33	SS 33		625812.30	2542683.60	22°59' 15.6899"N	70°13'38.9328"E	Unknown target
34	SS 34	Location 48	625955.28	2542722.82	22°59'16.9261"N	70°13'43.9654"E	Unknown target
35	SS 35	Location 49	626112.50	2542799.80	22°59' 19.3861"N	70°13'49.5092"E	Unknown; very small target
36	SS 36	Location 50	626278.10	2542700.00	22°59' 16.0962"N	70°13'55.2952"E	Anchor with rope/chain
37	SS 37	Location 51	626002.60	2542272.90	22°59' 2.285"N	70°13'45.4947"E	Unknown; very small target

38	SS 38	Location 52	626116.76	2541926.81	22°58'51"N	70°13'49.4017" E	Unknown; very small target
39	SS 39	Location 53	626266.90	2541292.50	22°58' 30.3373"N	70°13'54.4869" E	Suspected target
40	SS 40	Location 54	626248.30	2541177.50	22°58' 26.6033"N	70°13'53.7999" E	Unknown target
41	SS 41		626259.80	2541162.40	22°58' 26.1093"N	70°13'54.1993" E	Unknown target
42	SS 42	Location 59	626863.60	2539788.80	22°57' 41.2844"N	70°14'15"E	Unknown; very small target
43	SS 43	Location 60	627092.40	2539296.30	22°57' 25.209"N	70°14'22.8814" E	Unknown target; small in size
44	SS 44	Location 62	627159.30	2538813.20	22°57' 9.4836"N	70°14'25.0869" E	Unknown linear target
45	SS 45	Location 63	627208.80	2538658.90	22°57' 4.4533"N	70°14'26.779"E	Unknown target
46	SS 46	Location 64	627623.10	2538257.70	22°56' 51.2952"N	70°14'41.2047" E	Unknown target
47	SS 47	Location 66	626691.70	2536900.40	22°56' 7.4208"N	70°14'8.1059"E	Unknown target
48	SS 48	Location 67	625299.8	2535968	22°55'37.4837"N	70°13'18.9733" E	Unknown; very small target
49	SS 49	Location 68	625368.60	2535601.70	22°55'25.5555"N	70°13'21.2814" E	Unknown target
51	SS 50	Location 72	627264.00	2539928.40	22° 57' 45.7133" N	70° 14' 29.0936" E	Unknown target
52	SS 51	Location 75	627400.10	2539045.10	22° 57' 16.9572" N	70° 14' 33.6097" E	Unknown target; small in size
53	SS 52	Location 76	627440.60	2538919.80	22° 57' 12.8722" N	70° 14' 34.9944" E	Unknown; very small target
54	SS 53	Location 79	627621.50	2538265.00	22° 56' 51.5330" N	70° 14' 41.1507" E	Unknown; very small target
55	SS 54	Location 80	627223.10	2538094.00	22° 56' 46.0828" N	70° 14' 27.1135" E	Unknown target
56	SS 55	Location 81	627676.60	2537514.00	22° 56' 27.1006" N	70° 14' 42.8616" E	Small target; could be Tyre
57	SS 56	Location 82	627474.70	2537132.40	22° 56' 14.7492" N	70° 14' 35.6607" E	
58	SS 57	Location 83	627388.60	2537007.50	22° 56' 10.7120" N	70° 14' 32.6012" E	Small target; could be Tyre
59	SS 58	Location 85	626352.20	2536152.50	22° 55' 43.1969" N	70° 13' 55.9682" E	Small target; could be Tyre
60	SS 59	Location 87	625217.60	2535403.60	22° 55' 19.1554" N	70° 13' 15.9235" E	Unknown; very small target
61	SS 60	Location 87	625150.30	2535371.90	22° 55' 18.1429" N	70° 13' 13.5520" E	Unknown target; small in size
62	SS 61	Location 88	622899.80	2533834.80	22° 54' 28.7679" N	70° 11' 54.1195" E	Unknown target; small in size
63	SS 62	Location 91	622242.90	2533860.30	22° 54' 29.7705" N	70° 11' 31.0716" E	Unknown target; partially buried and scattered
64	SS 63	Location 90	622824.10	2533703.50	22° 54' 24.5189" N	70° 11' 51.4252" E	Unknown target; partially exposed
65	SS 64	Location 94	621748.50	2533073.20	22° 54' 4.3088" N	70° 11' 13.4969" E	Unknown; very small target
66	SS 65	Location 95	621677.70	2532934.50	22° 53' 59.8177" N	70° 11' 10.9729" E	Small target; could be Tyre

67	SS 66	Location 99	620948.90	2532786.00	22° 53' 55.1798" N	70° 10' 45.3539" E	Unknown linear target
68	SS 67	Location 100	621111.30	2532644.60	22° 53' 50.5400" N	70° 10' 51.0135" E	Unknown target; small in size
69	SS 68	Location 102	620296.50	2532322.70	22° 53' 40.2855" N	70° 10' 22.3286" E	Unknown; very small target
70	SS 69	Location 103	619917.00	2532343.90	22° 53' 41.0729" N	70° 10' 9.0165" E	Unknown target
71	SS 70	Location 105	619997.50	2532018.20	22° 53' 30.4623" N	70° 10' 11.7507" E	Unknown target; small in size
73	SS 71	Location 106	619543.30	2531810.40	22° 53' 23.8229" N	70° 9' 55.7538" E	Unknown target; small in size
74	SS 72	Location 107	619458.80	2531654.40	22° 53' 18.7725" N	70° 9' 52.7452" E	Small target; could be Tyre
76	SS 73	Location 108	619236.60	2531602.20	22° 53' 17.1323" N	70° 9' 44.9332" E	Unknown target; small in size
77	SS 74	Location 110	618618.50	2531205.60	22° 53' 4.3954" N	70° 9' 23.1334" E	Unknown target
78	SS 75	Location 111	618627.50	2531021.90	22° 52' 58.4202" N	70° 9' 23.3987" E	Linear feature; Could be chain
79	SS 76	Location 113	618337.20	2530724.10	22° 52' 48.8115" N	70° 9' 13.1299" E	Unknown target; partially buried and scattered
80	SS 77	Location 115	617279.60	2530077.60	22° 52' 28.0589" N	70° 8' 35.8424" E	Anchor with rope/chain
81	SS 78	Location 116	617160.80	2529984.90	22° 52' 25.0748" N	70° 8' 31.6487" E	Unknown target; partially buried and scattered
82	SS 79	Location 117	617002.80	2529979.80	22° 52' 24.9488" N	70° 8' 26.1033" E	Linear feature; Could be chain
83	SS 80	Location 119	616807.00	2529898.80	22° 52' 22.3643" N	70° 8' 19.2109" E	
84	SS 81	Location 120	616626.90	2529556.20	22° 52' 11.2701" N	70° 8' 12.7988" E	Linear feature; Could be chain
85	SS 82	Location 121	616503.30	2529559.40	22° 52' 11.4051" N	70° 8' 8.4628" E	Linear feature; Could be chain
86	SS 83	Location 121	616458.40	2529539.90	22° 52' 10.7823" N	70° 8' 6.8821" E	Unknown target
87	SS 84	Location 122	616198.40	2529520.80	22° 52' 10.2263" N	70° 7' 57.7541" E	Unknown target; small in size
88	SS 85	Location 123	615775.60	2529304.80	22° 52' 3.3086" N	70° 7' 42.8610" E	Unknown target; partially exposed
89	SS 86	Location 125	615805.50	2528990.30	22° 51' 53.0753" N	70° 7' 43.8256" E	Unknown target; small in size
90	SS 87	Location 124	615580.70	2529084.30	22° 51' 56.1876" N	70° 7' 35.9633" E	Anchor with rope/chain
91	SS 88	Location 126	615553.30	2528863.50	22° 51' 49.0151" N	70° 7' 34.9427" E	Linear feature; Could be chain
92	SS 89	Location 127	615667.70	2528775.90	22° 51' 46.1384" N	70° 7' 38.9331" E	Unknown linear target
93	SS 90	Location 128	615341.90	2528892.40	22° 51' 50.0073" N	70° 7' 27.5332" E	Unknown target; partially exposed
94	SS 91	Location 129	615248.10	2528774.20	22° 51' 46.1873" N	70° 7' 24.2105" E	Linear feature; Could be chain
96	SS 92	Location 130	614060.60	2528161.10	22° 51' 26.5451" N	70° 6' 42.3835" E	Unknown target; small in size

There are four anchors/mooring systems with chains/ropes, one linear chain like feature, two unknown linear objects, six unknown objects partially buried and scattered, sixteen small unknown objects, five very small unknown objects, two unknown small linear object, thirteen unknown objects and one suspected object traced within surveyed limit.

In general, the SSS mosaic shows that the seabed/riverbed is carpeted by sedimentary particles composed by clay, silt, silty clay, stiff-clay and silty sand. The records do not show the presence of any exposed hard rock. The SSS mosaic map is presented in Fig. 11 to 16.

### AII.5.2. Sub-Bottom Profile (SBP) Survey Results

The sub-bottom records acquired in the field were processed using several geophysical signal processing techniques such as zap filter, low pass filter, high pass filter, TVG and DBG. The filtered data were taken to interpretation window for target identification.

The targets namely SB1 to SB25, identified through sub-bottom profiling survey are presented in Figs. 11 to 16. The details of the targets/objects geographical locations and remarks are given in table AII.3.

**Table AII.3** Details of geographical locations of each targets/objects identified by SBP

S.No	Target ID	Location	UTM (Zone 42)		Geographic Location	
	SBP		X (m)	Y (m)	Latitude	Longitude
1	SB 1	Location 2	625261.2318	2550629.502	23°03'34.1836"N	70°13'21.9104"E
2	SB 2	Location 10	625270.35	2549189.06	23°02'47.3484"N	70°13'21.8077"E
3	SB 3	Location 12	625099.5956	2549020.14	23°02'41.9027"N	70°13'15.7592"E
4	SB 4	Location 14	625302.7588	2549039.299	23°02'42.4705"N	70°13'22.9024"E
5	SB 5		625323.8218	2548960.152	23°02'39.8915"N	70°13'23.6191"E
6	SB 6	Location 15	625598.8718	2548780.292	23°02'33.9689"N	70°13'33.2292"E
7	SB 7		625571.1454	2548759.296	23°02'33.2938"N	70°13'32.2489"E
8	SB 8	Location 17	625500.1977	2548450.271	23°02'23.2658"N	70°13'29.6656"E
9	SB 9	Location 21	625930.3111	2547689.741	23°01'58.4217"N	70°13'44.5514"E
10	SB 10		625952.0664	2547657.557	23°01'57.3694"N	70°13'45.3061"E
11	SB 11	Location 38	625642.57	2543502.18	22°59'42.3505"N	70°13'33.2127"E
12	SB 12	Location 40	626083.69	2543411.09	22°59'39.2688"N	70°13'48.6775"E
13	SB 13	Location 44	625701.43	2543049.81	22°59'27.6266"N	70°13'35.1469"E
14	SB 14	Location 49	626181.68	2542783.2	22°59'18.8275"N	70°13'51.9337"E
15	SB 15	Location 52	626090.3508	2541920.148	22°58'50.7921"N	70°13'48.4724"E
16	SB 16	Location 63	627200.72	2538660.95	22°57'4.5222"N	70°14'26.4959"E
17	SB 17	Location 66	626750.7463	2536859.478	22°56'6.0742"N	70°14'10.1665"E
18	SB 18	Location 68	625387.9944	2535634.59	22°55'26.6197"N	70°13'21.9717"E

19	SB 19	Location 71	626570.27	2540270.83	22°57'57.0369" N	70°14' 4.8374" E
20	SB 20	Location 78	627110.95	2538535.91	22°57'0.478" N	70°14'23.30" E
21	SB 21	Location 87	625222.61	2535403.59	22°55'19.15" N	70°13'16.098" E
22	SB 22	Location 89	622480.61	2533986.63	22°54'33.81" N	70°11'39.45" E
23	SB 23	Location 97	621520.8	2532879.97	22°53'58.08" N	70°11'5.45" E
24	SB 24	Location 109	618457.9	2531381.65	22°53'10.16" N	70°10'17.54" E
25	SB 25	Location 117	616986.91	2529972.89	22°52'24.72" N	70°08'25.54" E

Generally, sub-bottom is composed by different sedimentary formation at various depth. The second acoustic boundary which is called second layer, has also been observed few meters below from the seabed at assorted locations. The maximum acoustic boundary has been delineated at a distance of 8m below seabed. The sub-bottom profiles do not show any buried hard rock within the penetrated limit.

### AII.5.3. Magnetometer survey Results

The magnetic survey data shows that there are 88 marine magnetic anomalies present at surveyed location. The deviation from Earth's magnetic field caused by presence of man-made debris/objects are classified and plotted in the plate 1. The targets namely MA1 to MA88, identified through magnetometer survey are presented in Figs. 11 to 16. The details of the targets/objects and its geographical locations are given in the table AII.4.

