

	SOIL ENGINEERING SERVICES (SES) خدمات مهندسی مکانیک خاک	
	PROJ NO: 1347-EE-PEP-GEO-001-B	REV: B
	SUBJECT: GEOTECHNICAL INVESTIGATION, PHASE I, FACTUAL REPORT, SOUTH ALUMINIUM SMELTER (SALCO) IRAN	

Enclosure L

Shear Wave Tests



TITLE: Downhole Seismic Test



Project: SOUTH ALUMINUM SMELTER PLANT

FIG. No.: 1

CLIENT : NFC

PROJ. No. : 1347

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Characteristic Data for BH-109

Depth (m)	Vp (m/sec)	Vs (m/sec)	E (MPa)	G (MPa)	K (MPa)
2	330	190	181	72	122
4	510	240	313	115	367
6	800	270	419	146	1086
8	1050	290	491	168	1981
9.2	1075	300	525	180	2071
10.2	1110	315	578	198	2200
12.2	1180	300	528	180	2545
15.1	1219	311	567	193	2714
18.1	1215	278	455	155	2746
20	1530	398	927	317	4259
25.1	1570	404	956	326	4495
28.1	1454	370	802	274	3863
30.1	1410	342	687	234	3664
33.1	1380	338	671	228	3504
36.1	1520	361	766	261	4273
38.1	1580	381	853	290	4606
40	1490	348	713	242	4117
42.8	1560	412	993	339	4415
44.1	1535	380	848	289	4327
48	1740	432	1095	373	5558
49	1740	438	1125	384	5544

TITLE: Downhole Seismic Tests Result



Project: SOUTH ALUMINUM SMELTER PLANT

FIG. No.: 2

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Characteristic Data for BH-145

Depth (m)	Vp (m/sec)	Vs (m/sec)	E (MPa)	G (MPa)	K (MPa)
2	301	174	151	61	100
4	571	270	395	146	458
6	810	300	511	180	1072
8	1104	321	599	206	2163
9.2	1235	368	786	271	2689
10.2	1220	364	769	265	2623
12.2	1527	381	852	290	4276
15.1	1208	315	581	198	2654
18.1	1131	243	349	118	2401
20.1	1256	267	421	143	2965
23	1420	329	637	216	3744
25.1	1531	330	643	218	4398
28.1	1680	365	786	266	5290
30.2	1510	321	608	206	4285
33.1	1645	348	715	242	5089
35.2	1408	282	470	159	3753
38.6	1430	297	521	176	3855
40	1710	364	782	265	5495

TITLE: Downhole Seismic Tests Result



Project: SOUTH ALUMINUM SMELTER PLANT

FIG. No.: 3

CLIENT : NFC

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Characteristic Data for BH-202

Depth (m)	Vp (m/sec)	Vs (m/sec)	E (MPa)	G (MPa)	K (MPa)
2	385	211	229	89	178
4	615	250	350	125	590
6	1015	272	432	148	1863
8	1140	320	597	205	2326
10.2	1230	345	694	238	2708
15.1	1380	362	767	262	3459
20.1	1445	370	802	274	3811
23.1	1357	300	531	180	3443
25.1	1495	325	623	211	4188
27.1	1669	351	728	246	5243
30.1	1710	367	795	269	5489
32.1	1740	390	897	304	5650
34.1	1770	415	1013	344	5807
36.1	1770	436	1116	380	5759

TITLE: Downhole Seismic Tests Result



Project: SOUTH ALUMINUM SMELTER PLANT

FIG. No.: 4

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Characteristic Data for BH-279

Depth (m)	Vp (m/sec)	Vs (m/sec)	E (MPa)	G (MPa)	K (MPa)
2	400	174	168	61	239
4	833	364	732	265	1034
5	675	300	496	180	671
8	1186	332	643	220	2519
10	1275	364	771	265	2898
13	1282	367	784	269	2928
15	1162	321	601	206	2426
17	1171	257	390	132	2566
20	1218	296	515	175	2733
23	1650	353	736	249	5113
25	1535	326	628	213	4429
27	1748	376	835	283	5734
30	1505	310	568	192	4274

TITLE: Downhole Seismic Tests Result



Project: SOUTH ALUMINUM SMELTER PLANT

FIG. No.: 5

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