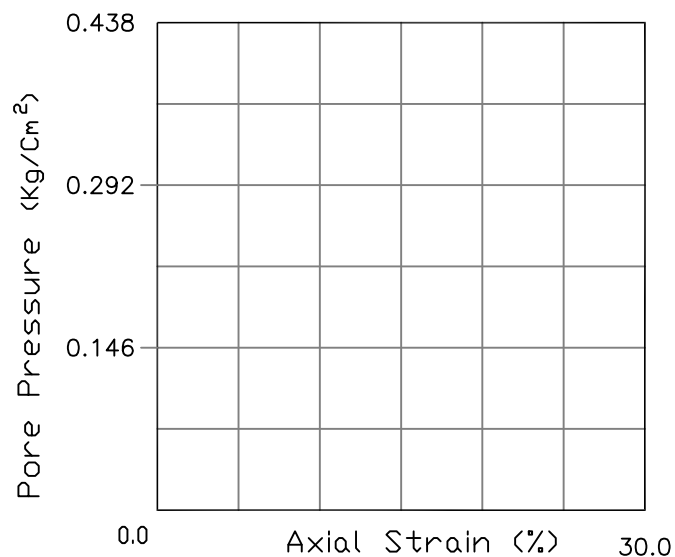
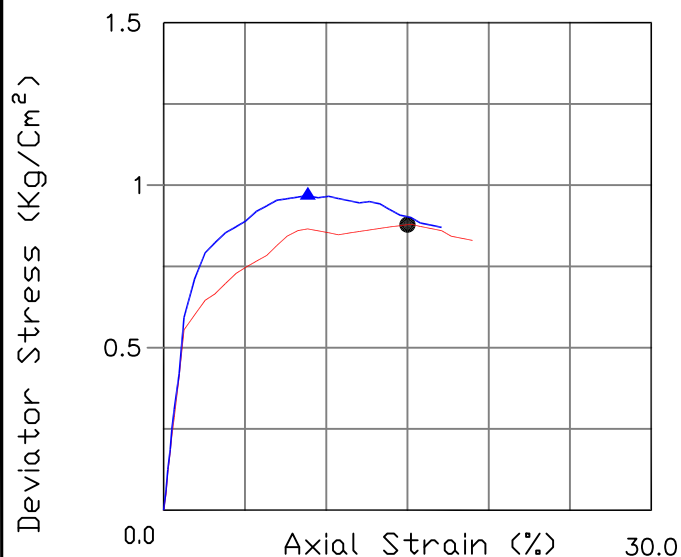


	SOIL ENGINEERING SERVICES (SES)		خدمات مهندسی مکانیک خاک
	PROJ NO: 1347-EE-PEP-GEO-001-B	REV: B	
	SUBJECT: GEOTECHNICAL INVESTIGATION, PHASE I, FACTUAL REPORT, SOUTH AIUMINIUM SMELTER (SALCO) IRAN		

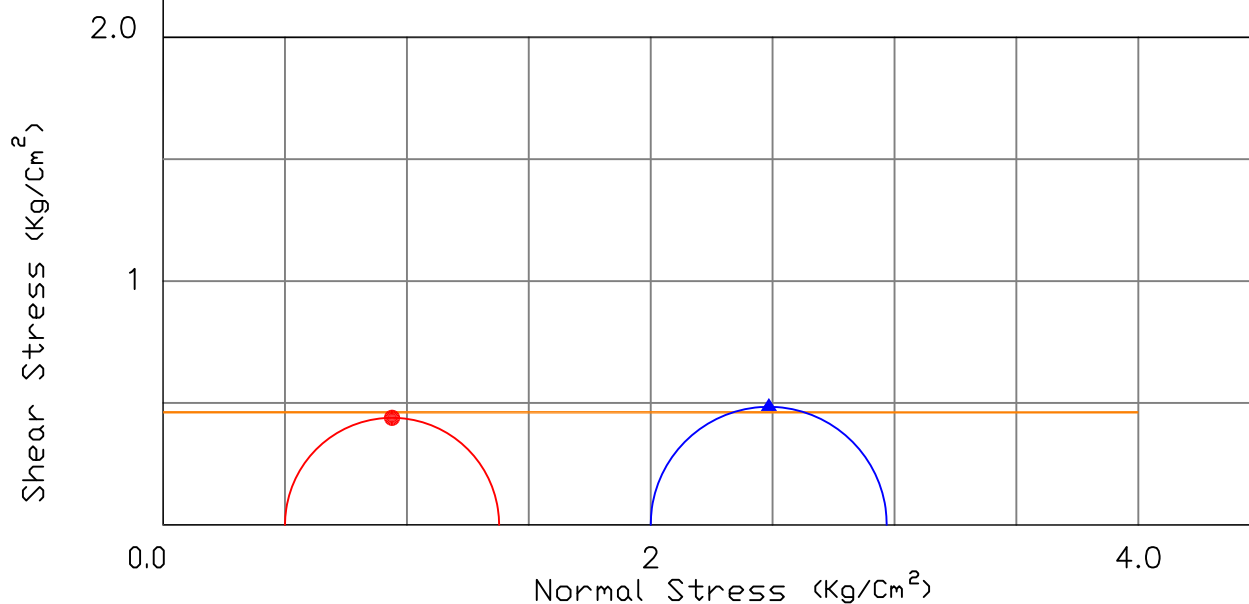
Enclosure U

Triaxial Tests - UU



— TOTAL STRESS	TEST TYPE	C = 0.46 Kg/Cm ²
- - - - - EFFECTIVE STRESS	Unconsolidated Undrained	φ = 0°

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-013	U03	11.50-12.00	<ML/CL>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.62	26	0.50	0.88		
▲	1.62	27	2.00	0.97		
■						

TRIAXIAL TEST RESULT

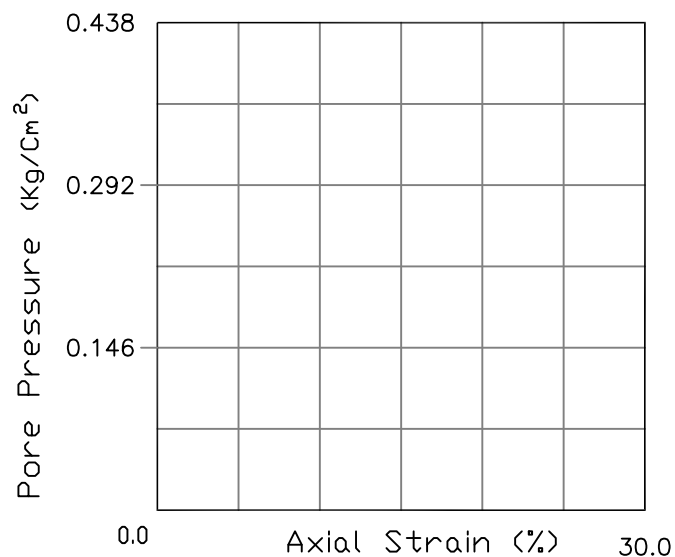
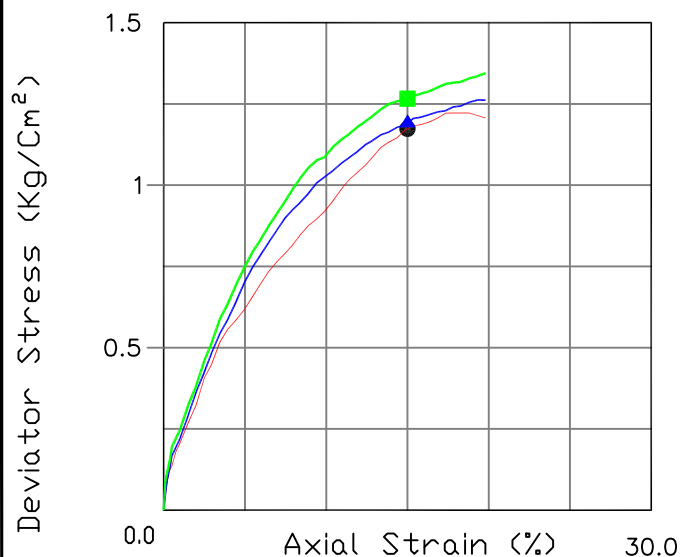


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
1

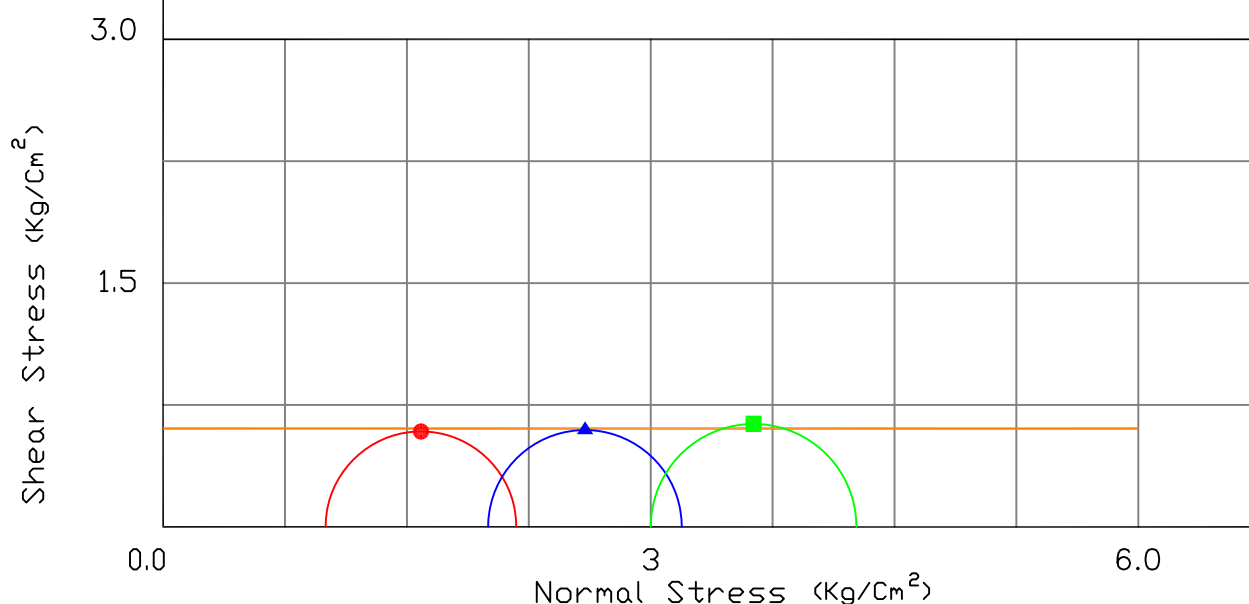
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.60 Kg/Cm ²
----- EFFECTIVE STRESS	Unconsolidated Undrained	∅ = 0°

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-031	U05	14.00-14.50	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.62	25	1.00	1.17	1.00	
▲	1.64	24	2.00	1.19	1.00	
■	1.65	23	3.00	1.27	1.00	

TRIAXIAL TEST RESULT

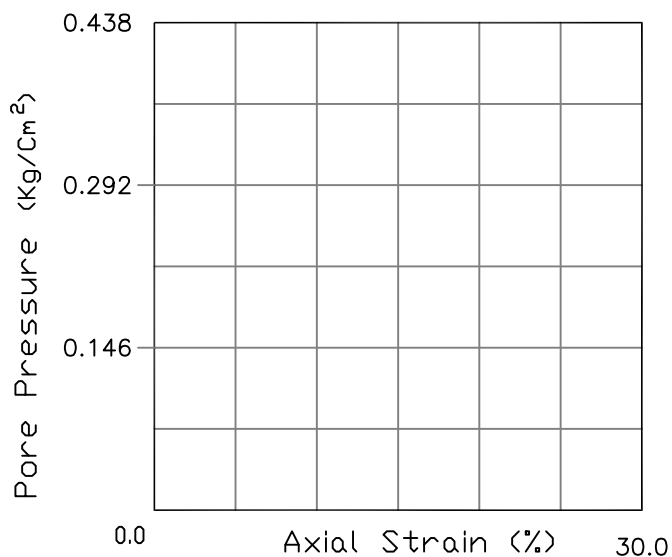
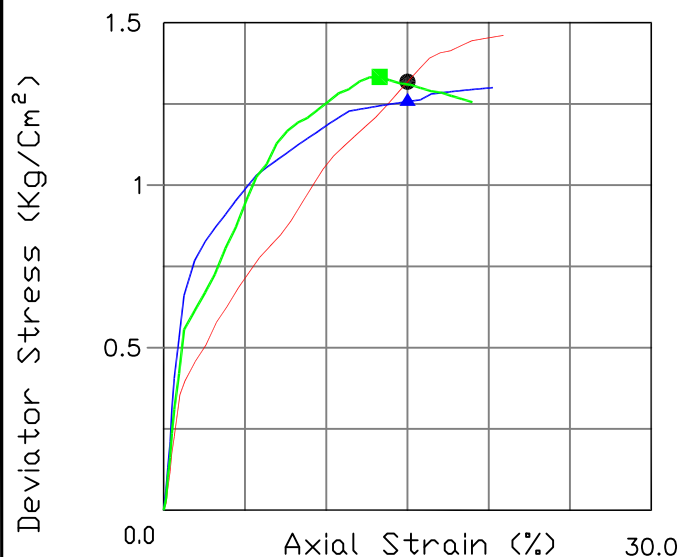


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
2

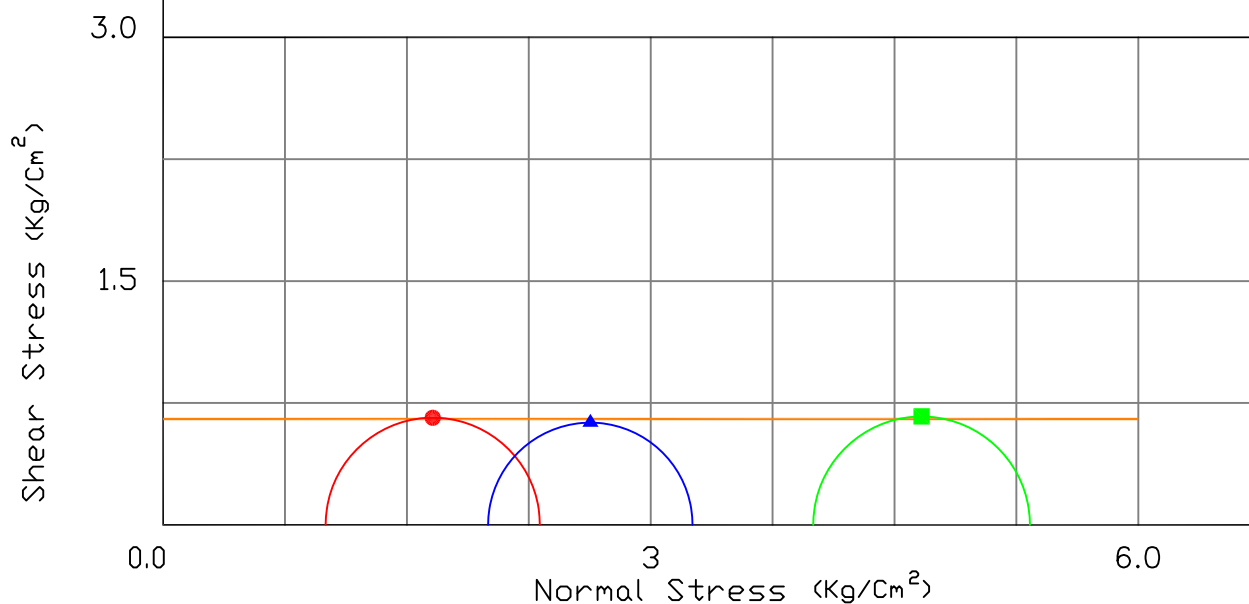
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.65 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-035	U06	18.00-18.50	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.69	23	1.00	1.32		
▲	1.73	22	2.00	1.26		
■	1.74	22	4.00	1.33		

TRIAXIAL TEST RESULT

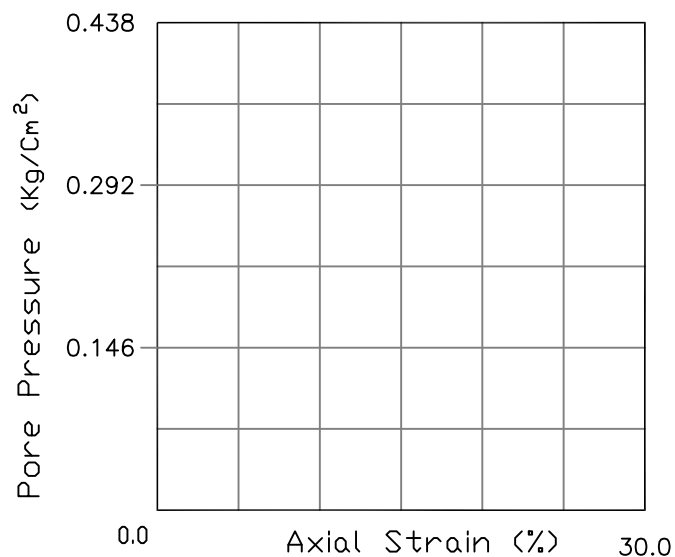
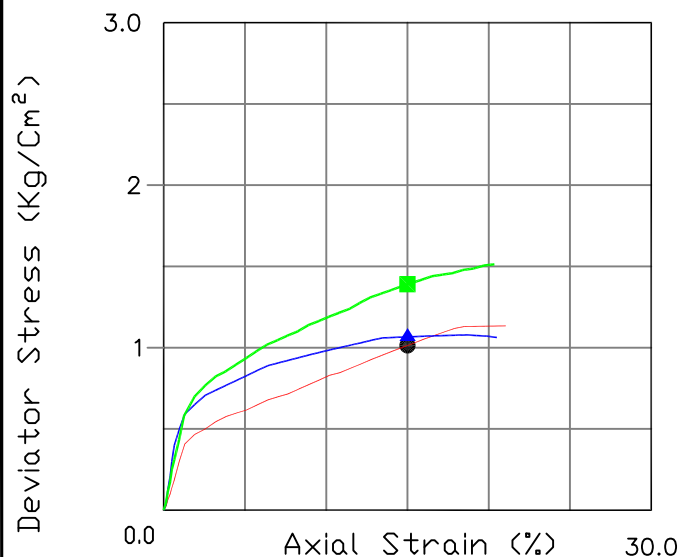


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
3

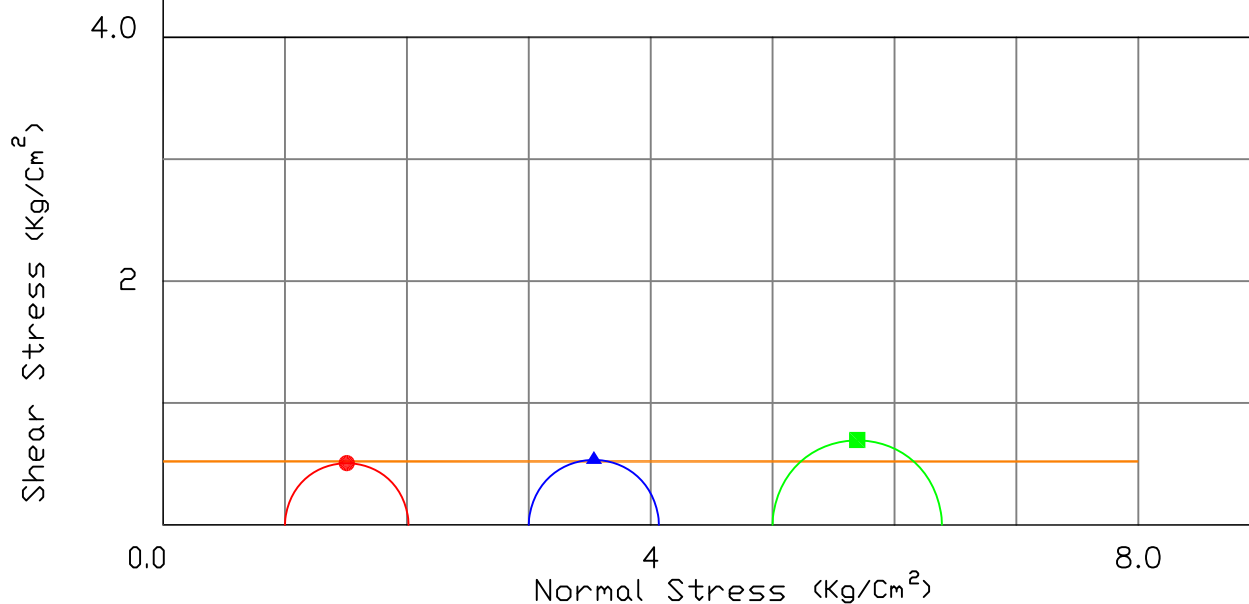
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.52 Kg/cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS : SAMPLE < ■ > NOT HOMOGENEOUS



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-035	U07	19.50-20.00	

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.72	22	1.00	1.01		
▲	1.74	22	3.00	1.07		
■	1.72	22	5.00	1.39		

TRIAXIAL TEST RESULT

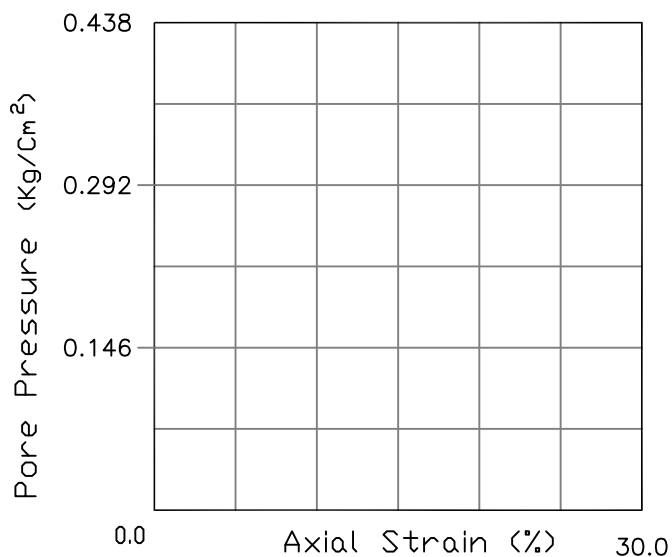
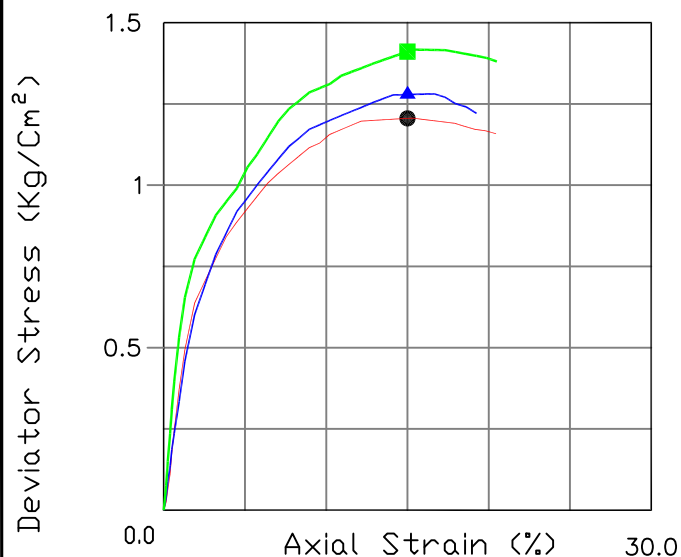


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
4

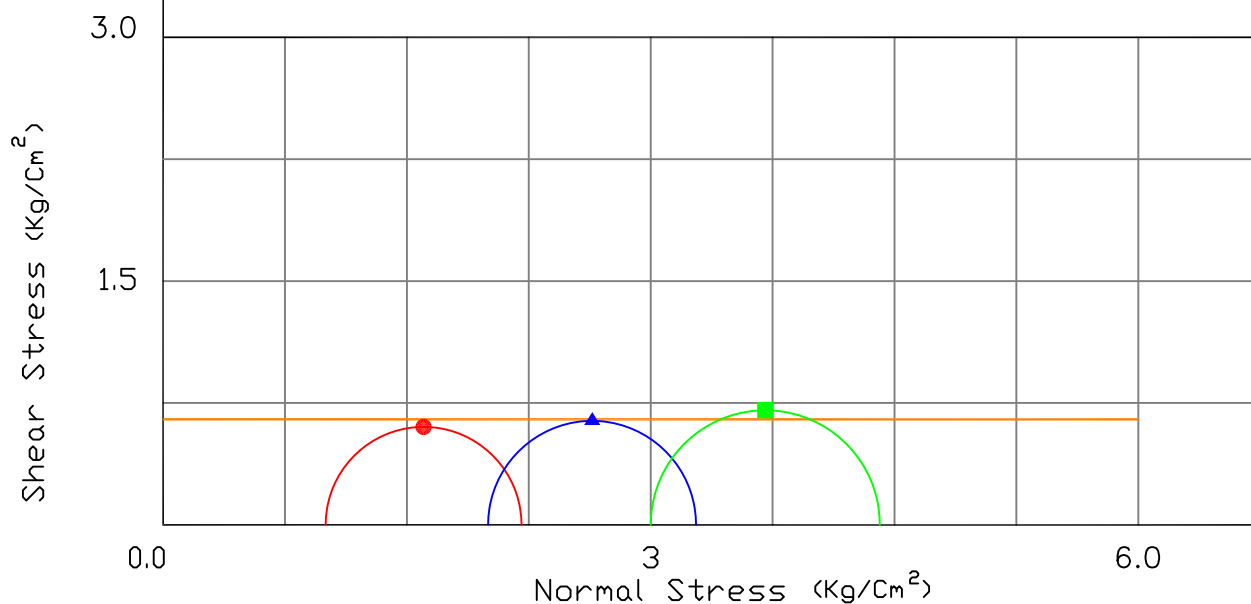
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.65 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-048	U05	17.50-17.95	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.68	26	1.00	1.21		
▲	1.68	26	2.00	1.28		
■	1.68	27	3.00	1.41		

TRIAXIAL TEST RESULT

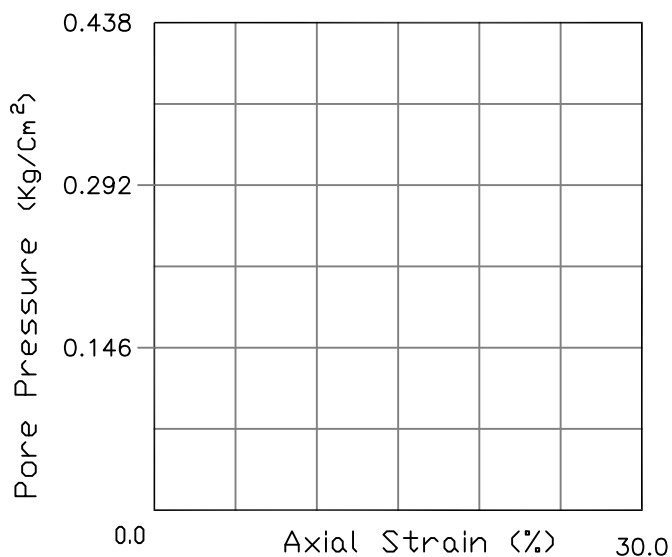
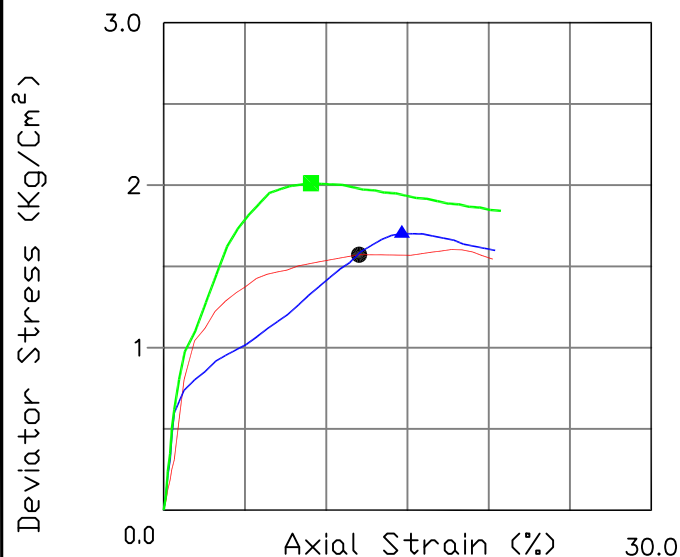


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
5

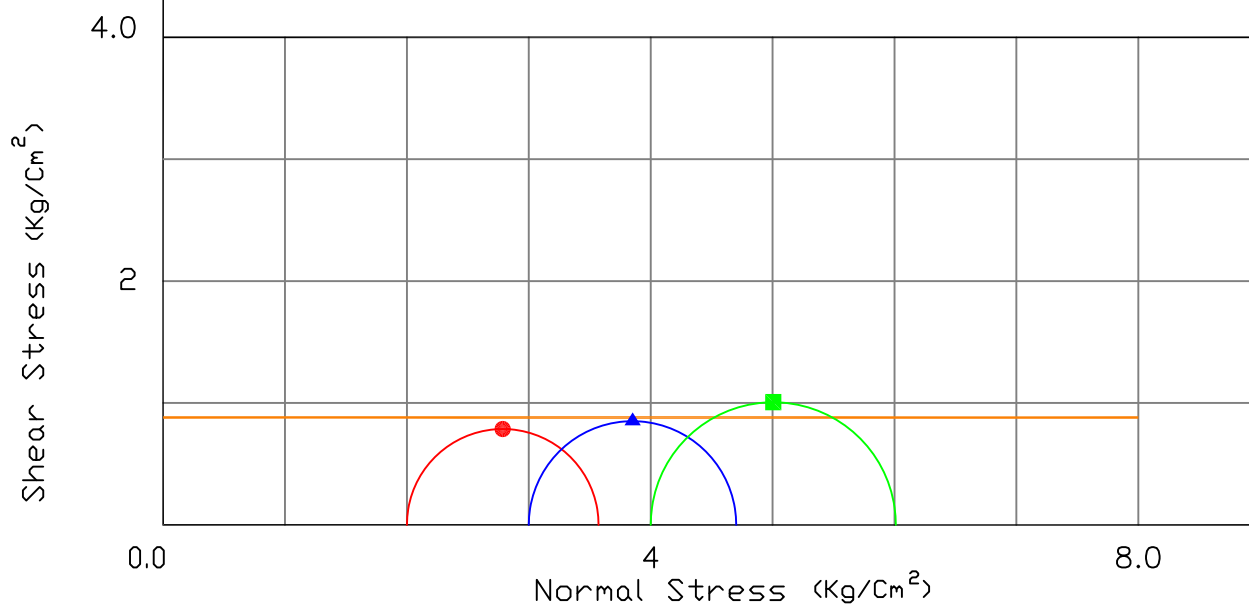
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.88 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-048	U08	25.00-25.45	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.65	27	2.00	1.57		
▲	1.65	27	3.00	1.70		
■	1.65	27	4.00	2.01		

TRIAXIAL TEST RESULT

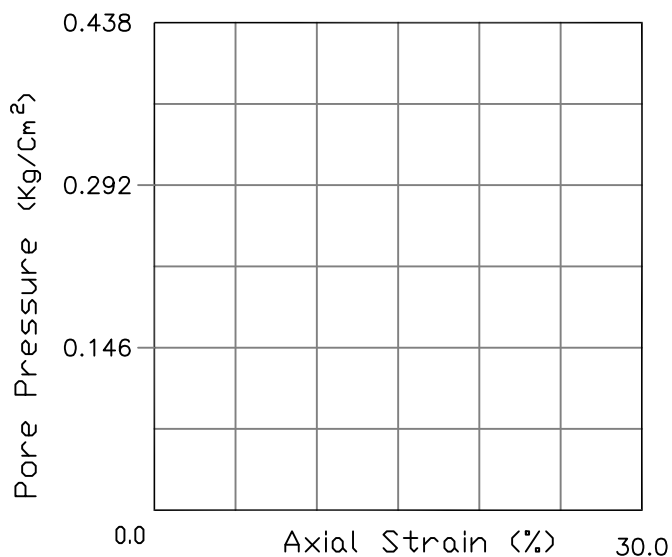
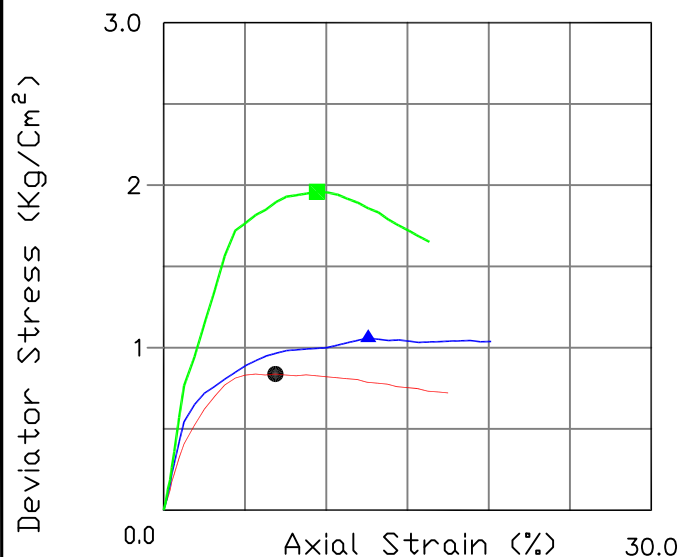


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
6

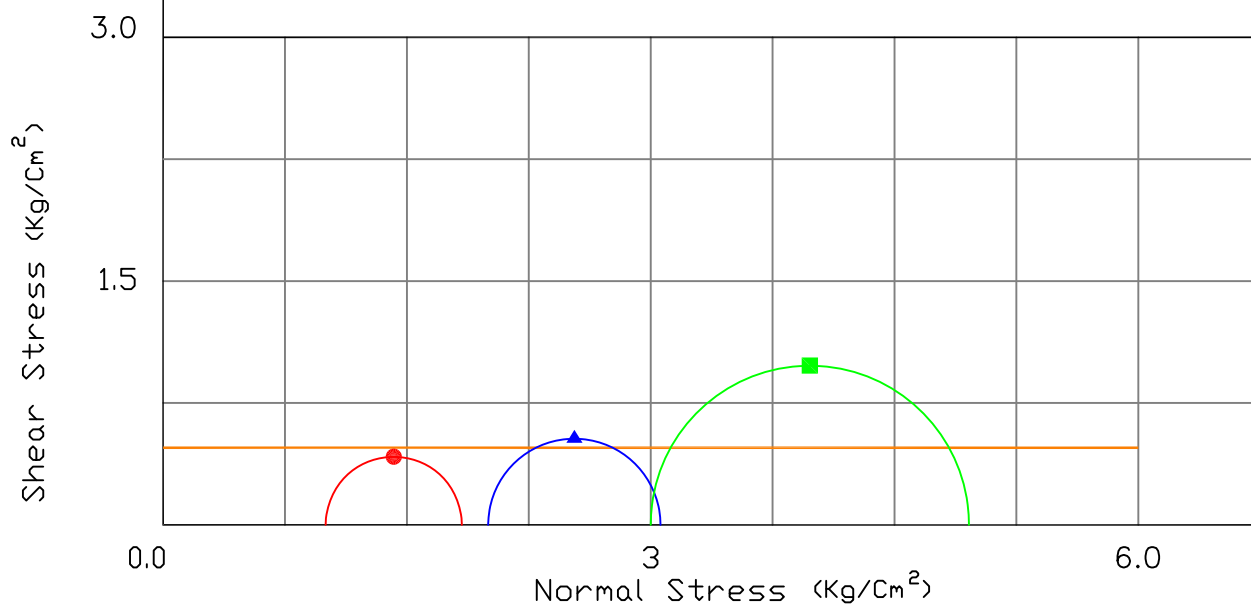
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



— TOTAL STRESS	TEST TYPE	C = 0.47 Kg/Cm ²
- - - - - EFFECTIVE STRESS	Unconsolidated Undrained	φ = 0°

REMARKS : SAMPLE < ■ > NOT HOMOGENEOUS



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-049	U04	13.00-13.50	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.56	27	1.00	0.84		
▲	1.66	23	2.00	1.06		
■	1.61	26	3.00	1.96		

TRIAXIAL TEST RESULT

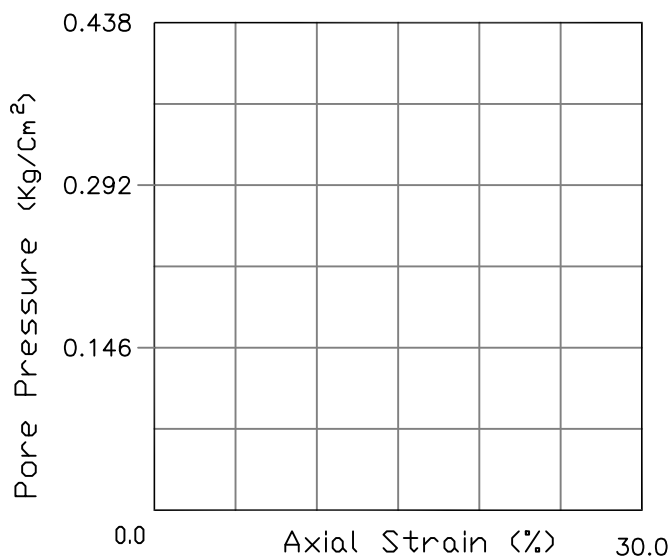
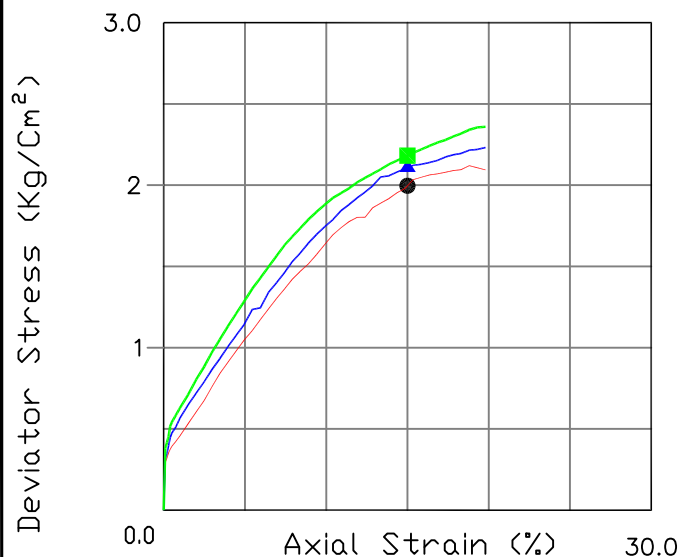


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
7

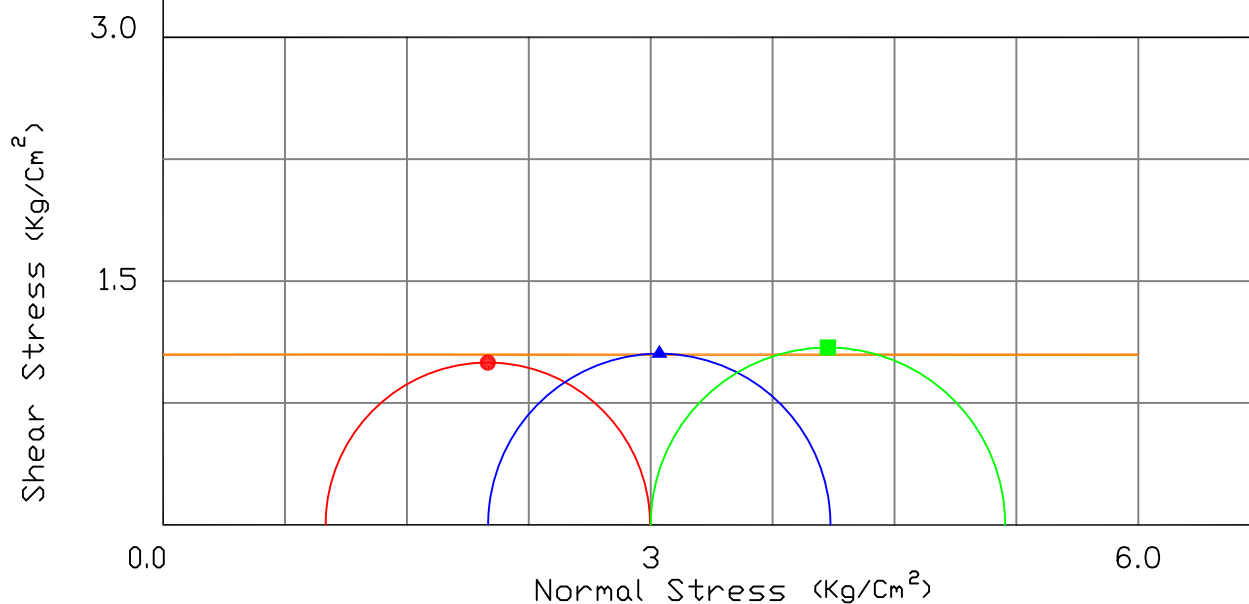
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 1.05 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-078	U07	19.00-19.50	CL

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.86	20	1.00	2.00	1.00	
▲	1.82	22	2.00	2.11	1.00	
■	1.84	20	3.00	2.18	1.00	

TRIAXIAL TEST RESULT

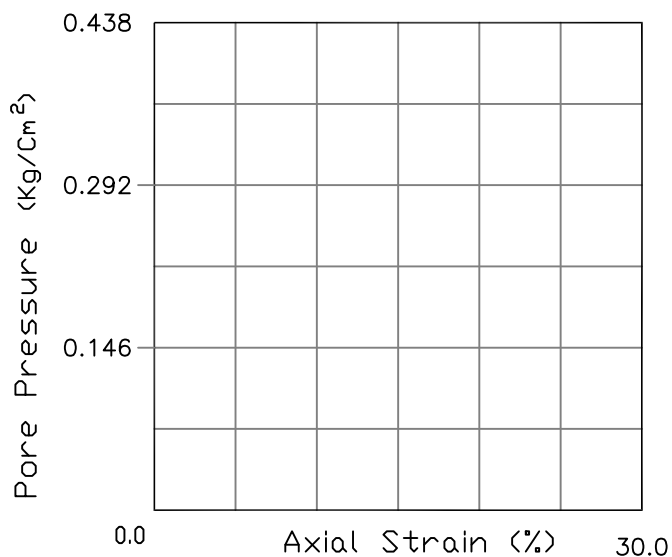
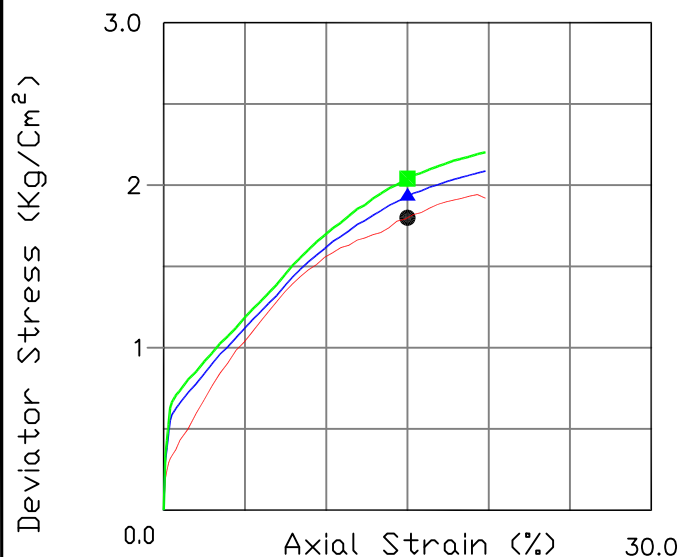


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
8

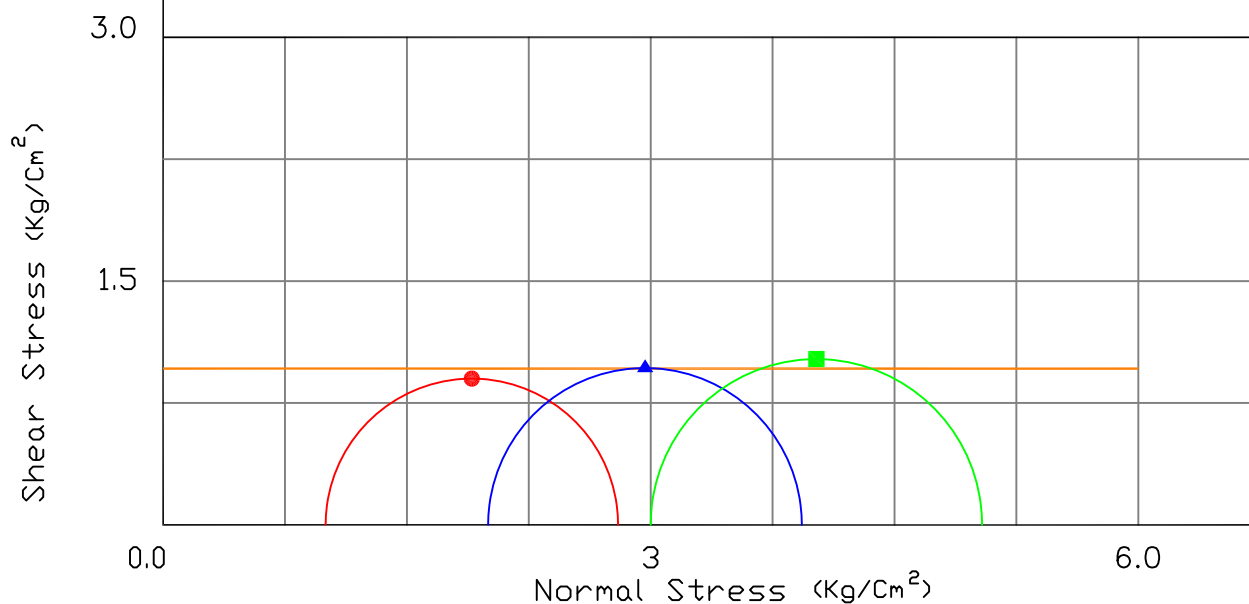
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.96 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-086	U06	17.50-18.00	CL

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.55	22	1.00	1.80	1.00	
▲	1.56	22	2.00	1.93	1.00	
■	1.57	22	3.00	2.04	1.00	

TRIAXIAL TEST RESULT

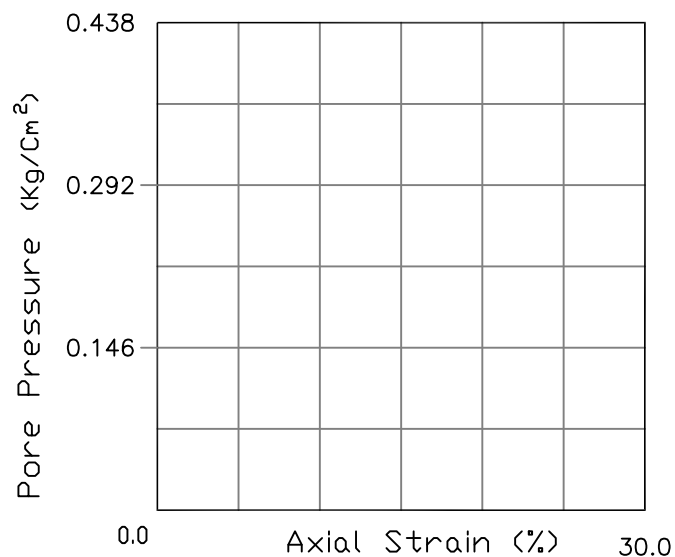
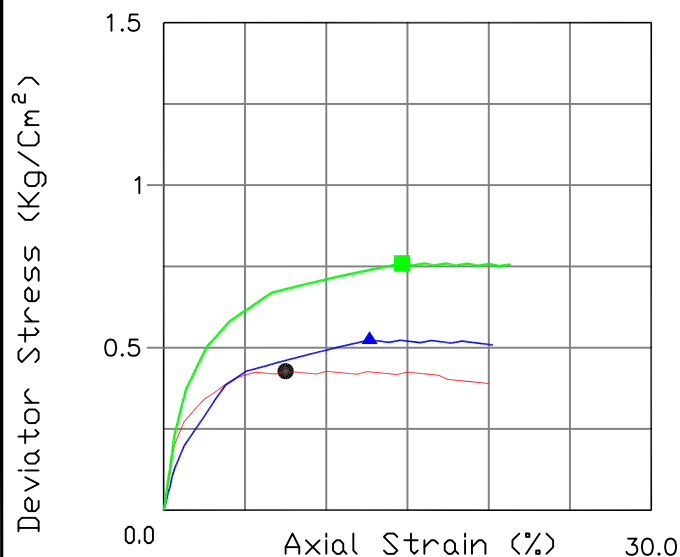


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
9

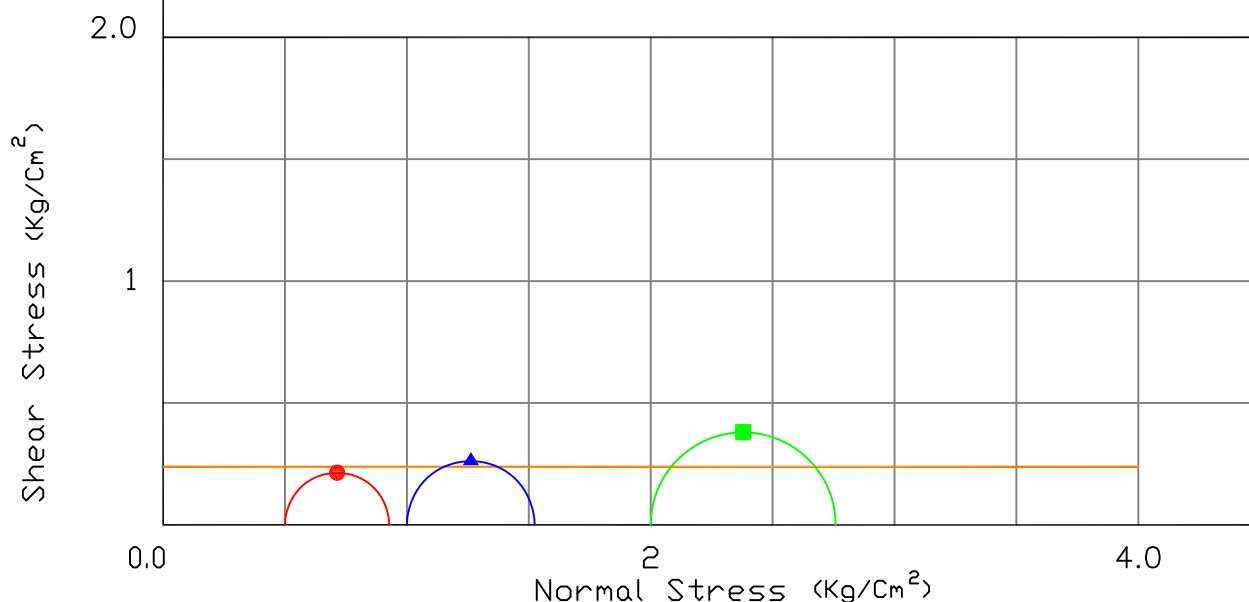
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.24 Kg/cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS : SAMPLE < ■ > NOT HOMOGENEOUS



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-100	U03	10.00-10.50	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.66	26	0.50	0.43		
▲	1.66	25	1.00	0.52		
■	1.65	26	2.00	0.76		

TRIAXIAL TEST RESULT

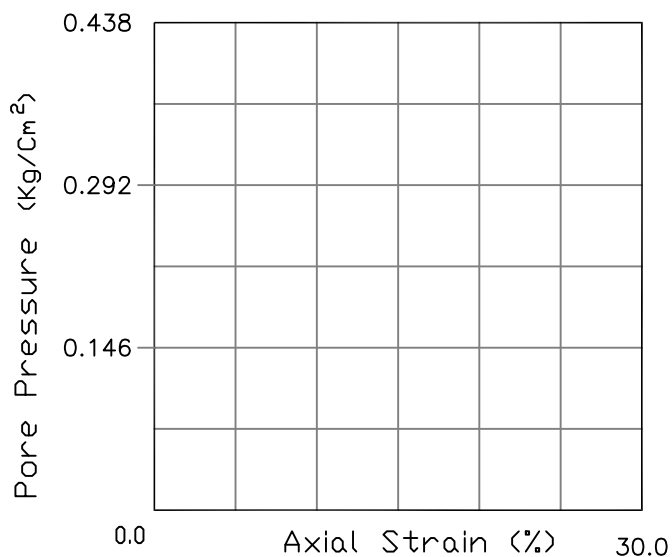
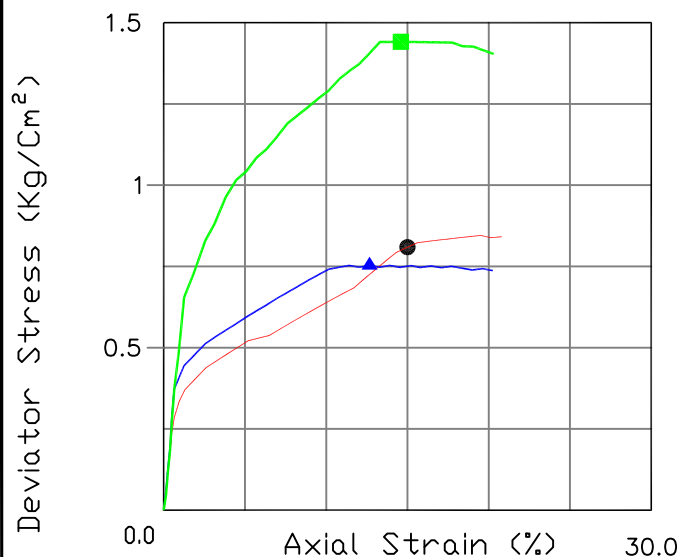


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
10

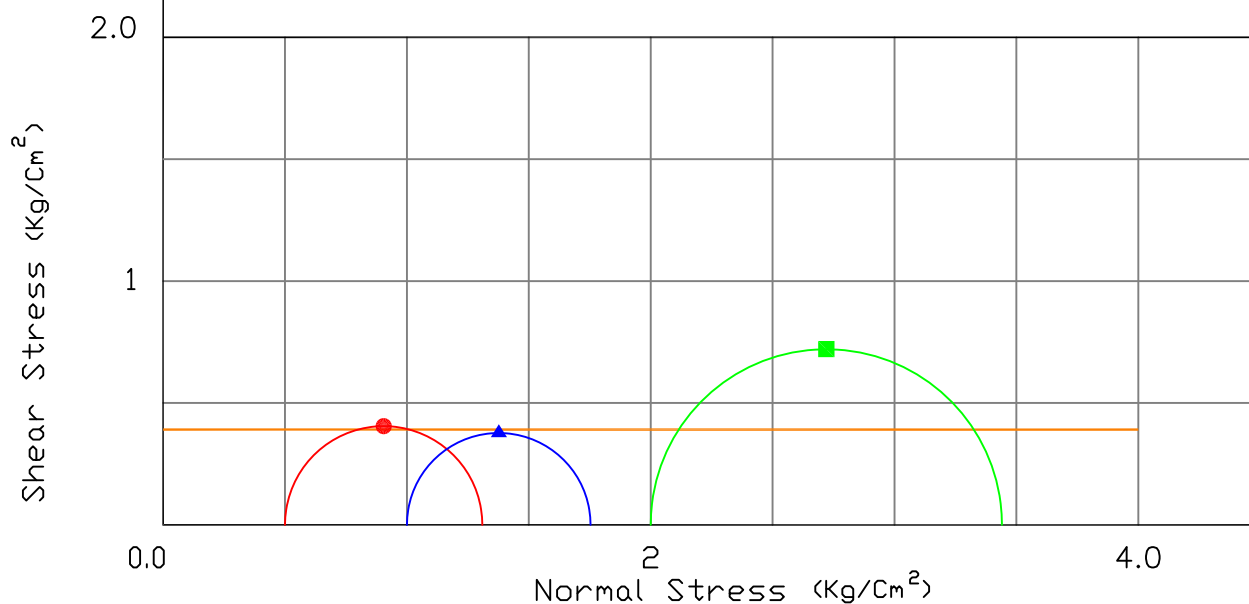
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.39 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS : SAMPLE < ■ > NOT HOMOGENEOUS



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-109	U03	11.50-11.90	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.79	23	0.50	0.81		
▲	1.71	24	1.00	0.75		
■	1.72	24	2.00	1.44		

TRIAXIAL TEST RESULT

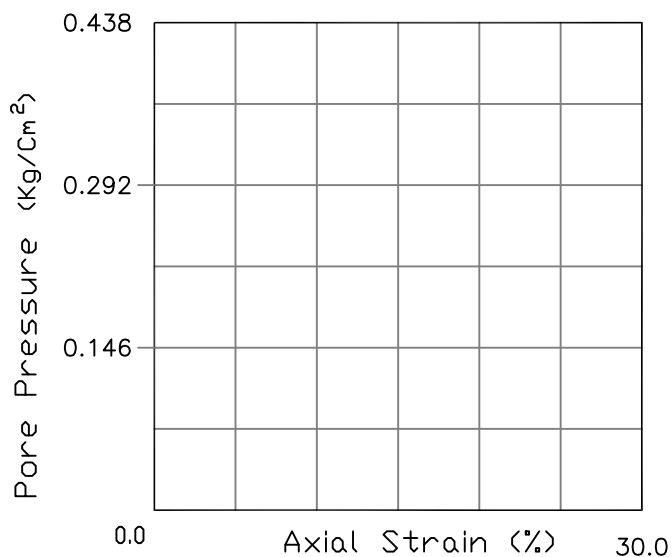
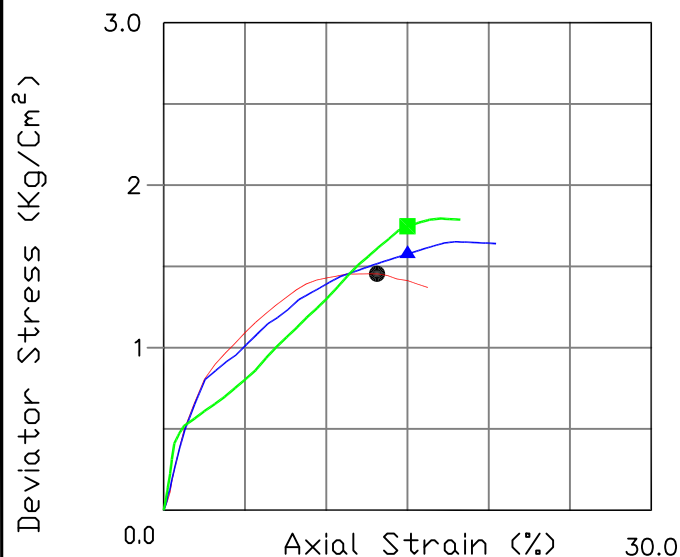


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
11

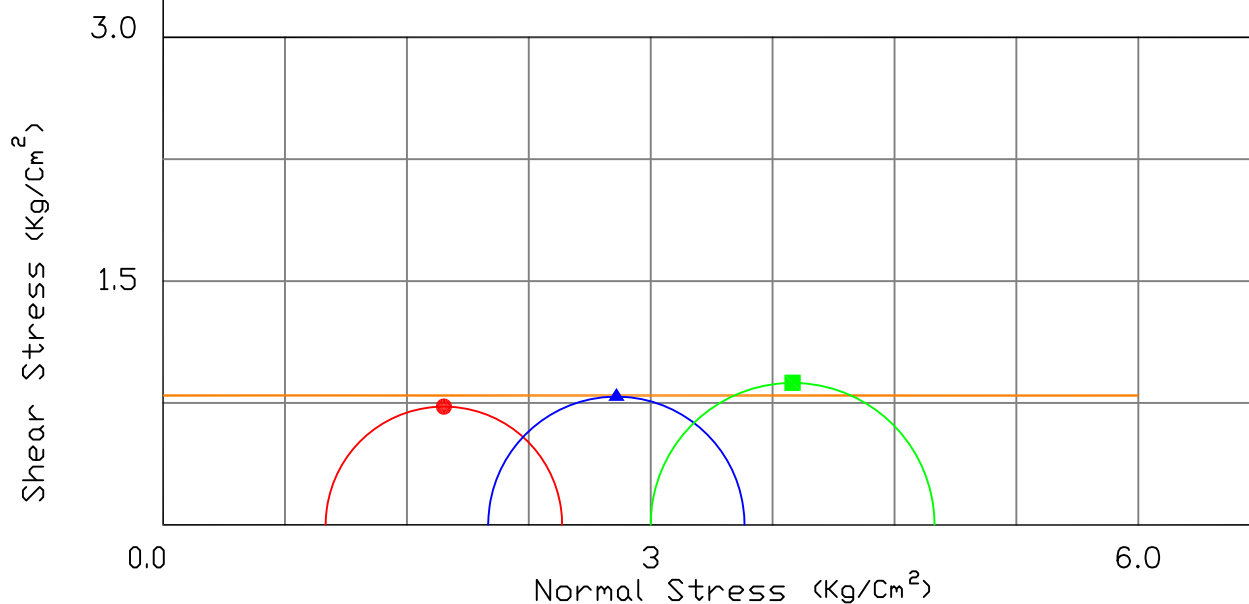
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.80 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-112	U04	15.00-15.60	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.73	25	1.00	1.45		
▲	1.73	23	2.00	1.58		
■	1.76	23	3.00	1.75		

TRIAXIAL TEST RESULT

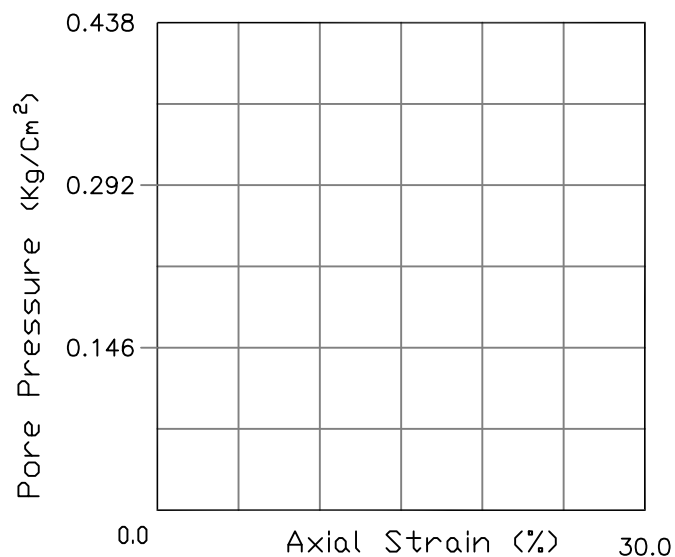
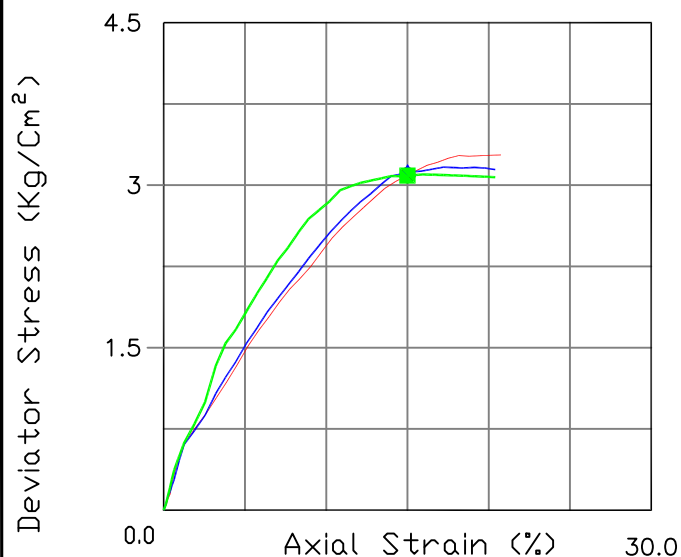


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
12

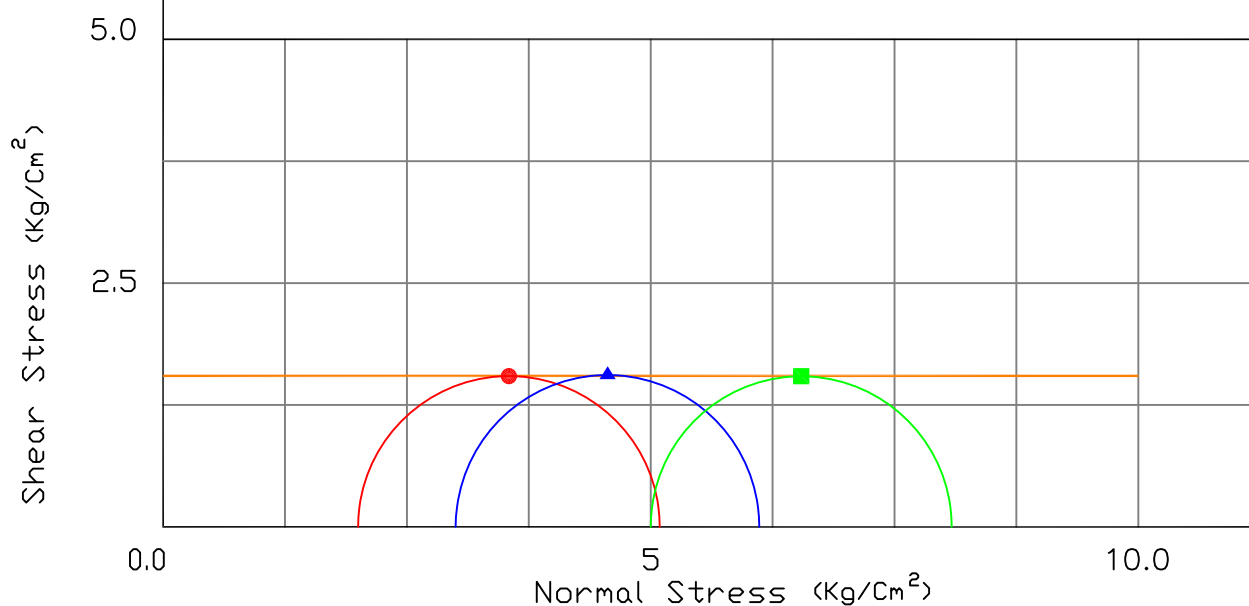
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 1.55 Kg/Cm ²
----- EFFECTIVE STRESS	Unconsolidated Undrained	ϕ = 0°

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-112	U12	35.00-35.35	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.64	27	2.00	3.09		
▲	1.64	27	3.00	3.11		
■	1.64	26	5.00	3.09		

TRIAXIAL TEST RESULT

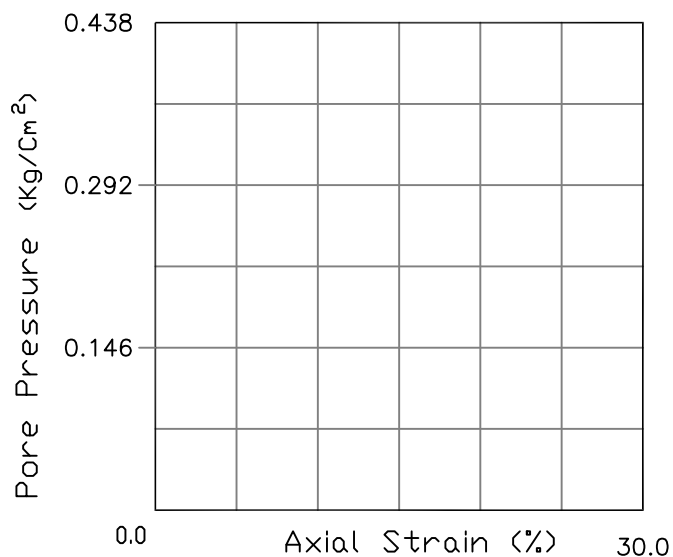
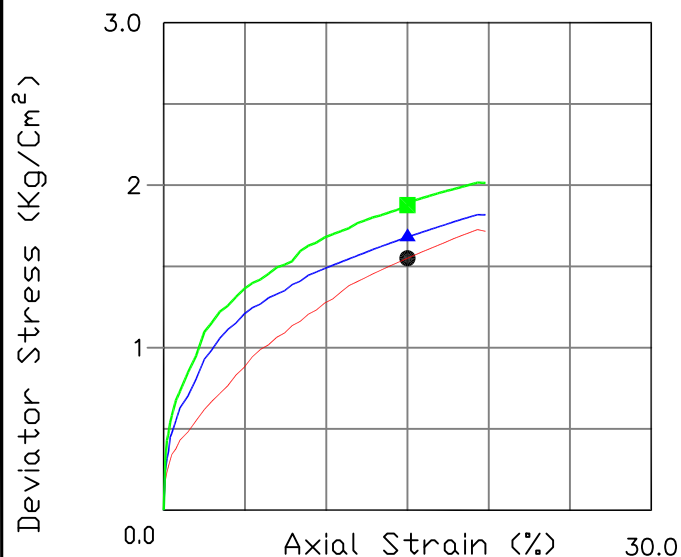


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
13

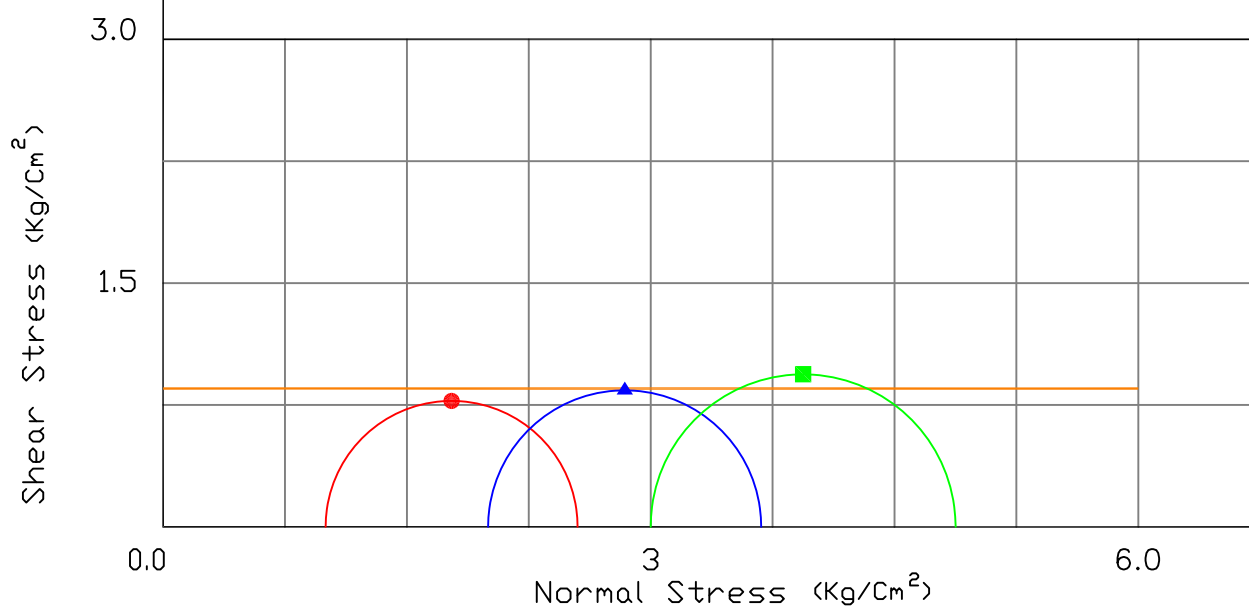
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.85 Kg/cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-119	U10	26.00-26.50	<CL>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.59	25	1.00	1.55	1.00	
▲	1.60	25	2.00	1.68	1.00	
■	1.58	25	3.00	1.88	1.00	

TRIAXIAL TEST RESULT

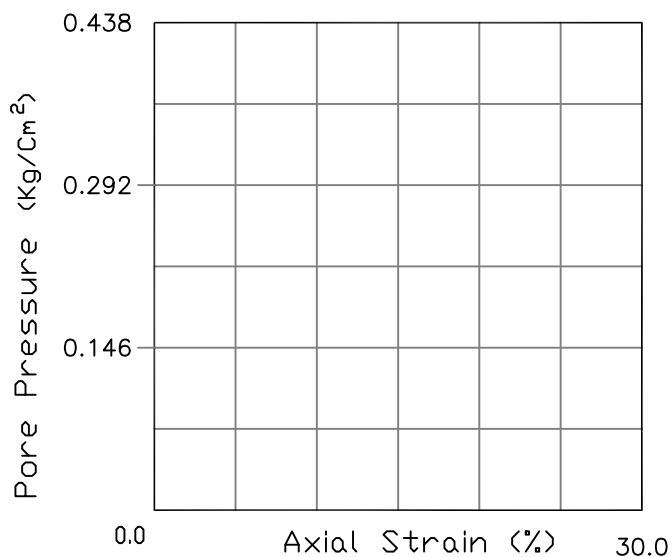
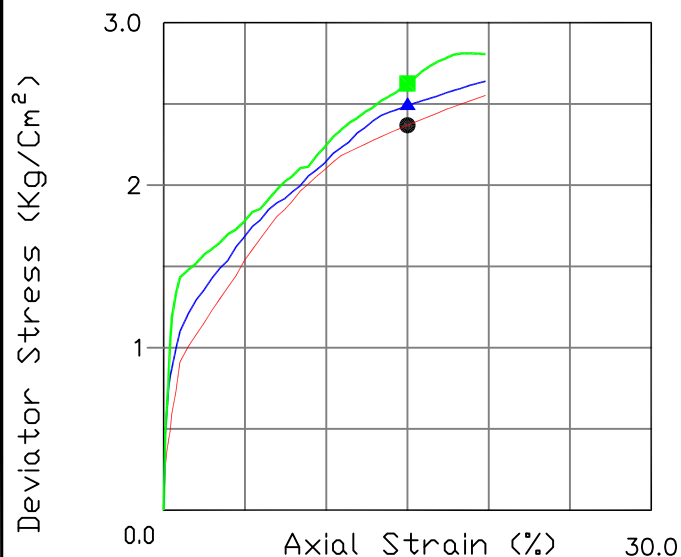


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
14

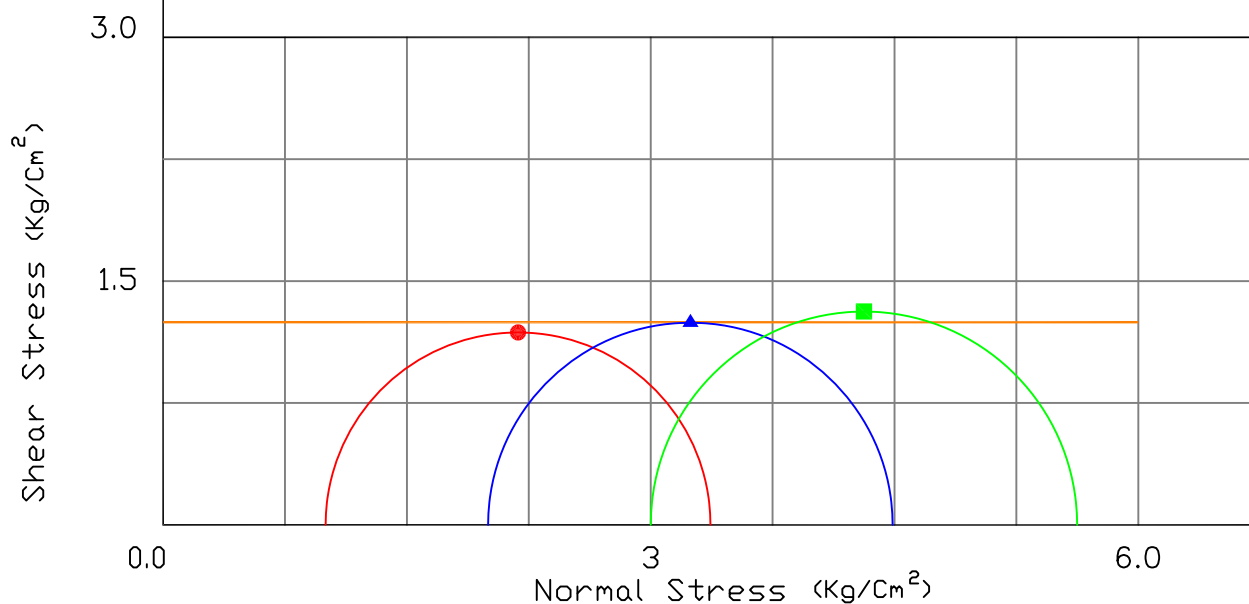
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 1.25 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-139	U11	28.00-28.50	CL

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.66	20	1.00	2.37	1.00	
▲	1.66	21	2.00	2.49	1.00	
■	1.68	21	3.00	2.62	1.00	

TRIAXIAL TEST RESULT

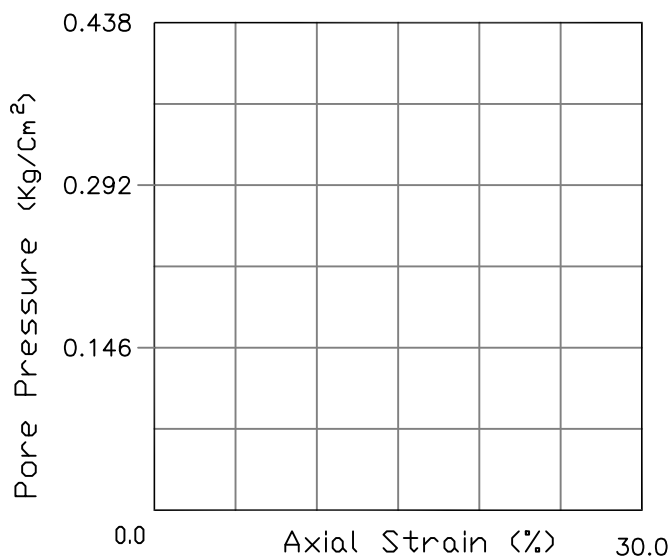
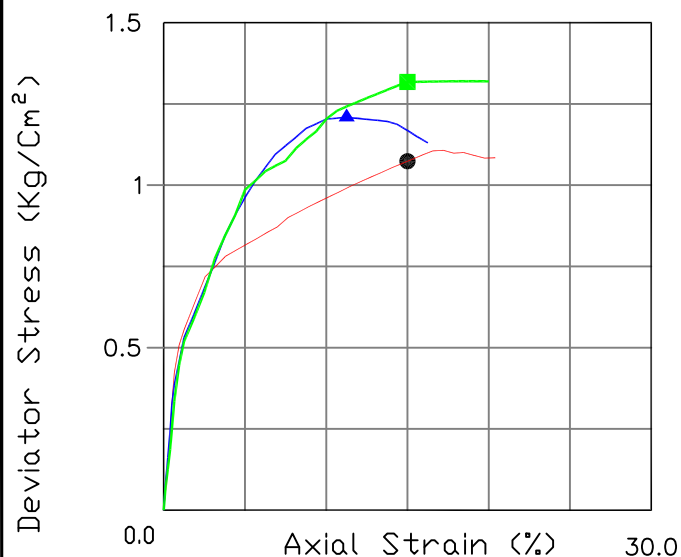


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
15

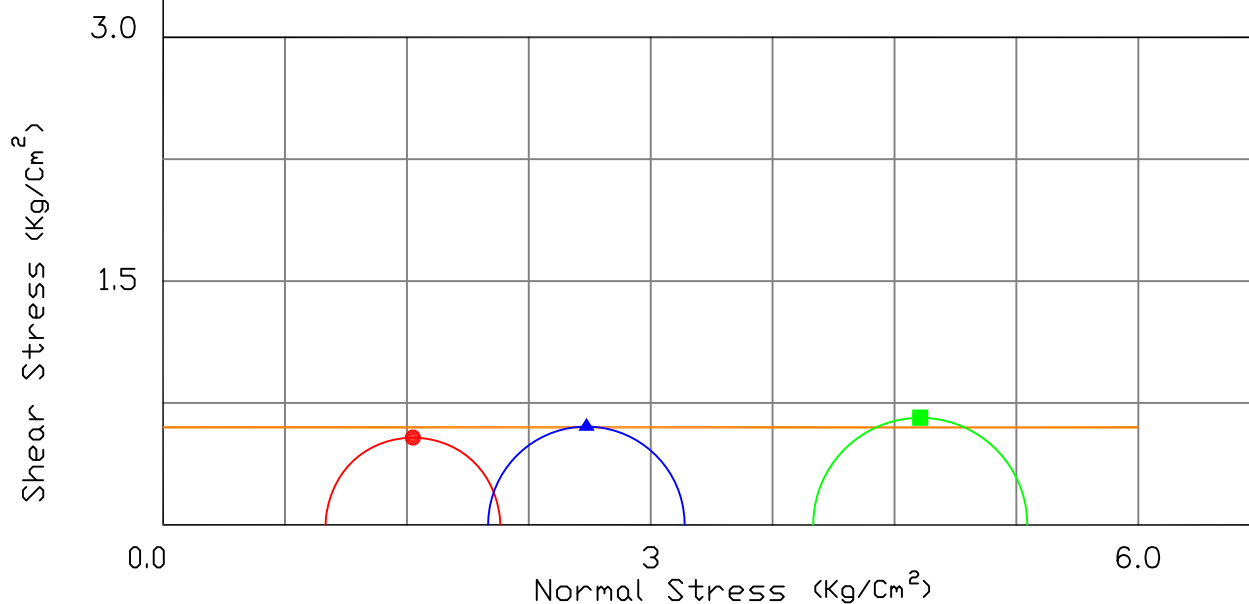
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



— TOTAL STRESS	TEST TYPE	C = 0.60 Kg/Cm ²
-----EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-148	U05	13.50-14.00	<ML/CL>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.64	25	1.00	1.07		
▲	1.66	25	2.00	1.21		
■	1.66	26	4.00	1.32		

TRIAXIAL TEST RESULT

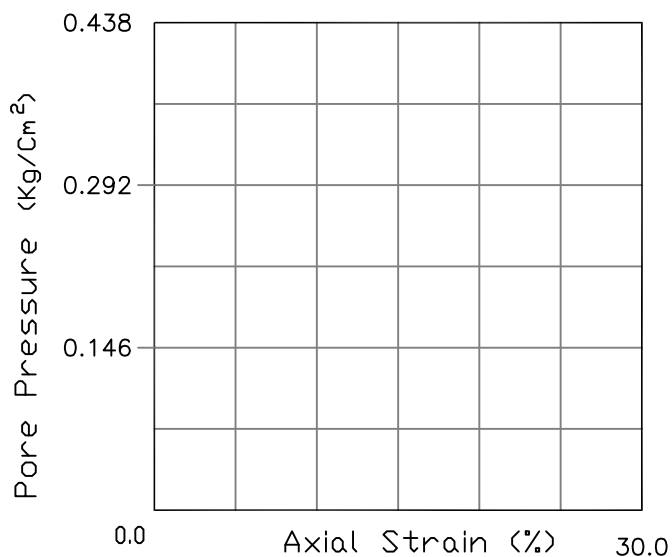
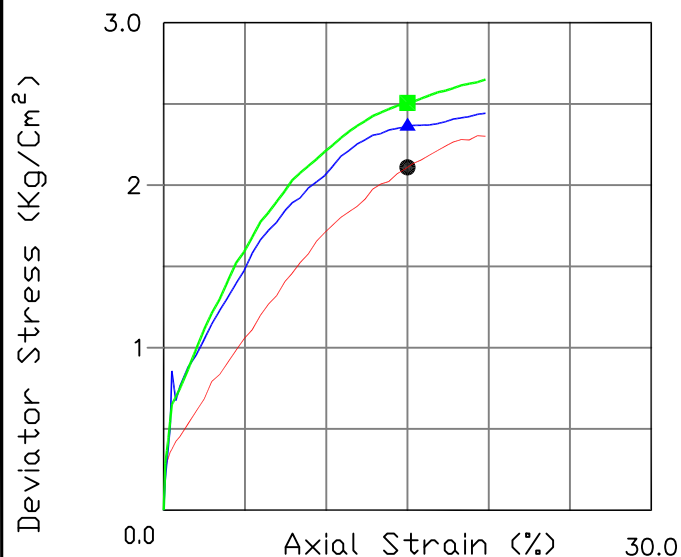


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
16

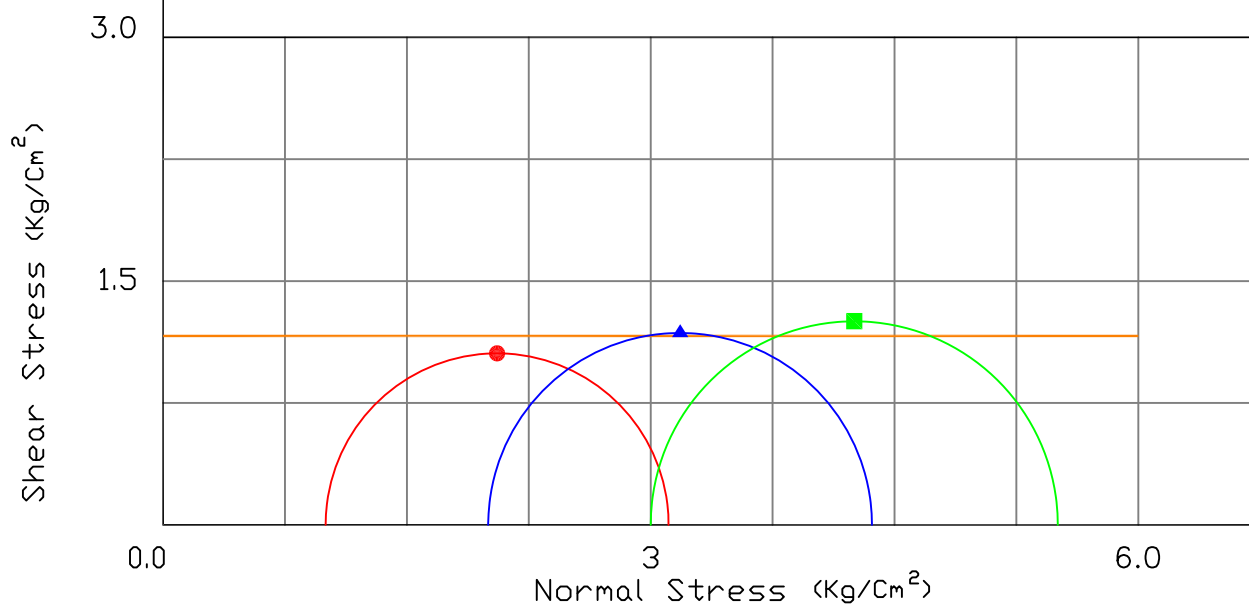
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 1.16 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-157	U10	24.00-24.50	<CL>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.85	21	1.00	2.11	1.00	
▲	1.85	20	2.00	2.36	1.00	
■	1.85	21	3.00	2.50	1.00	

TRIAXIAL TEST RESULT

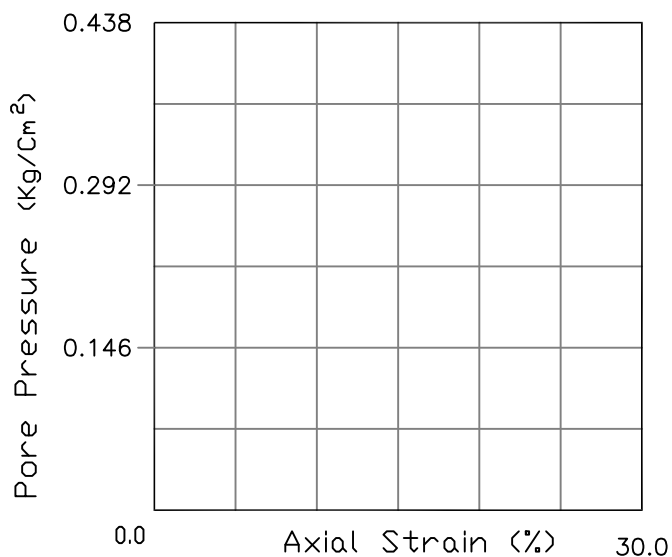
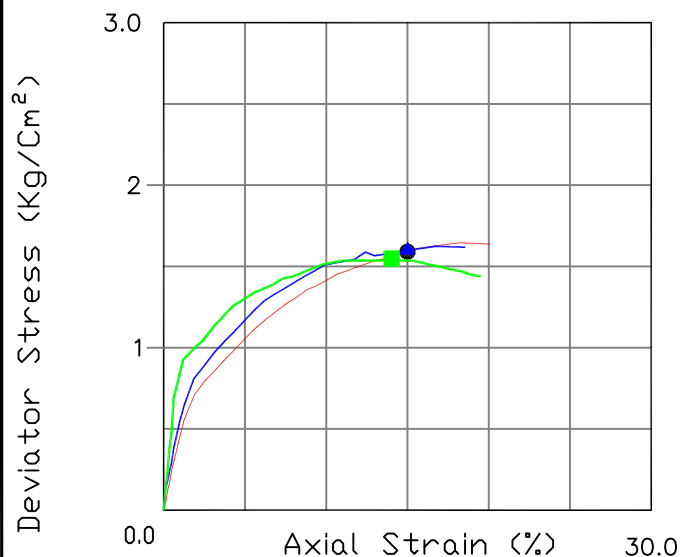


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
17

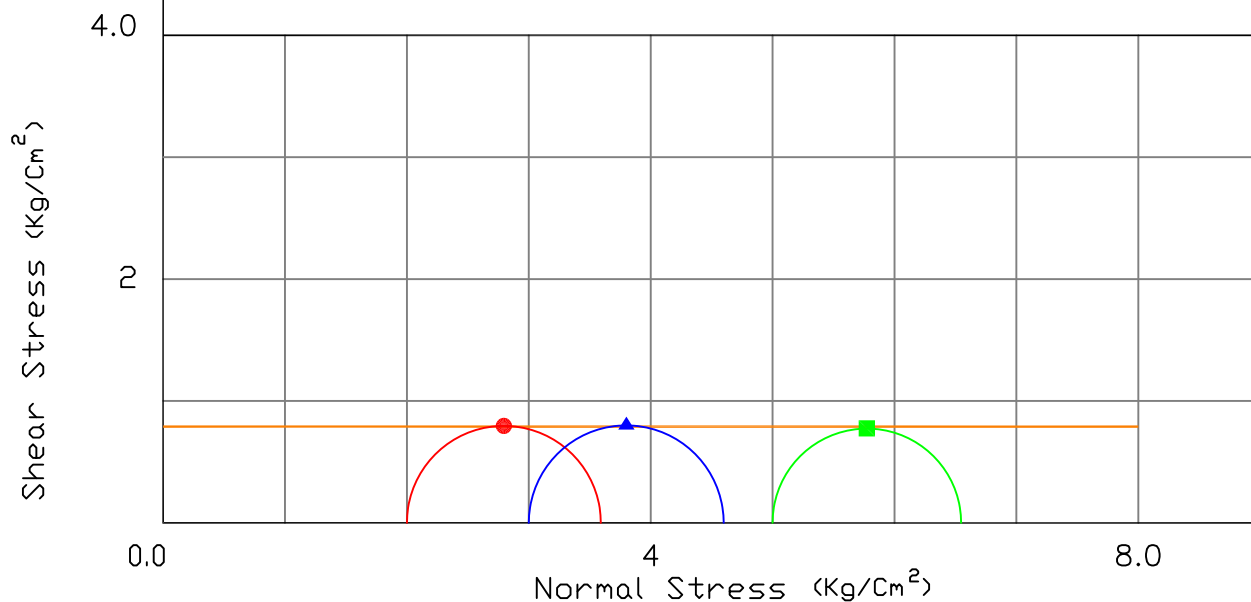
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.79 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-161	U07	23.00-23.35	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.68	25	2.00	1.59		
▲	1.67	26	3.00	1.60		
■	1.66	27	5.00	1.55		

TRIAXIAL TEST RESULT

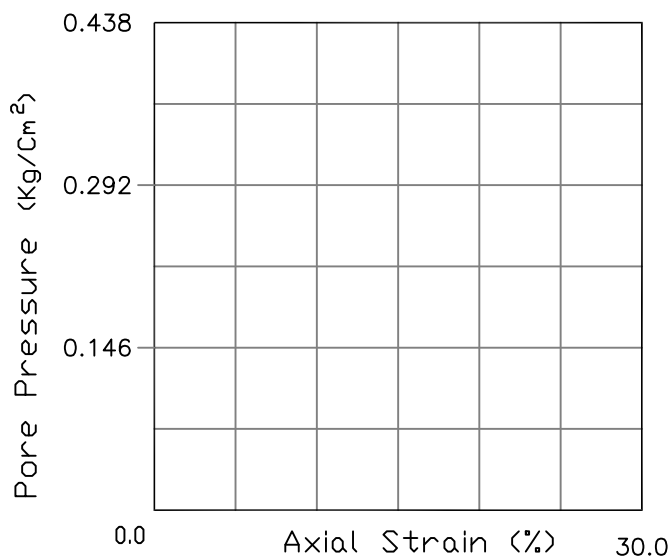
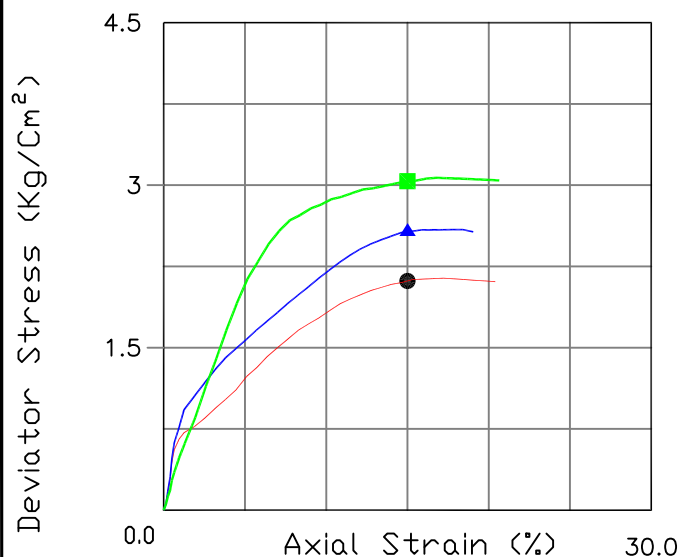


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
18

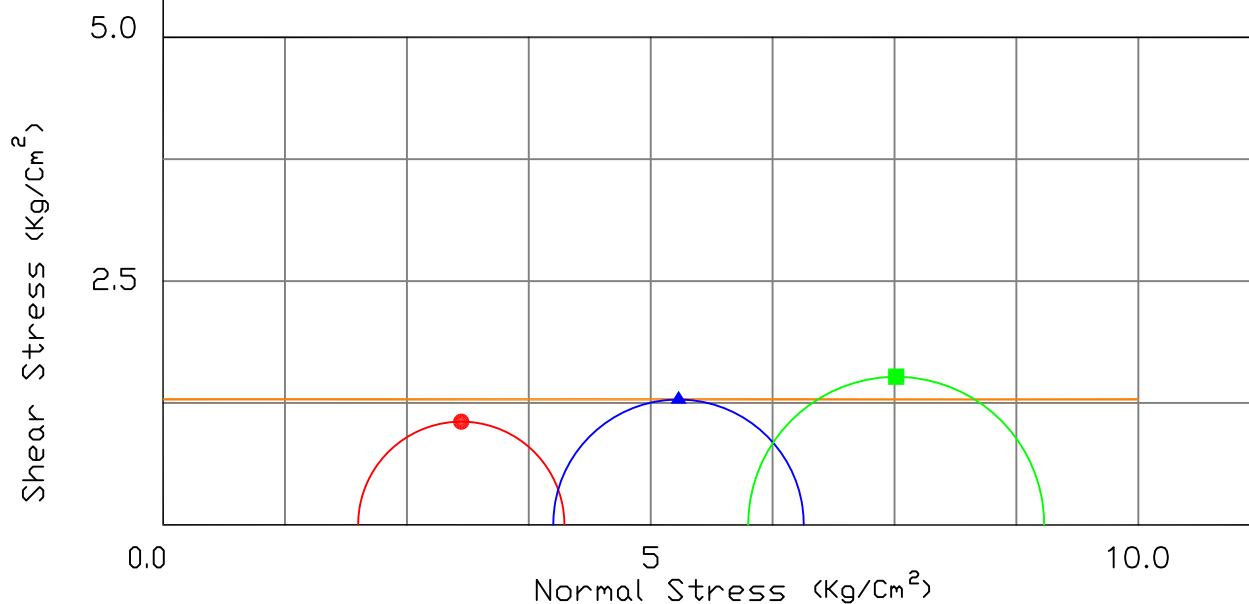
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



— TOTAL STRESS	TEST TYPE	C = 1.29 Kg/Cm ²
- - - - - EFFECTIVE STRESS	Unconsolidated Undrained	φ = 0°

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-161	U15	43.00-43.50	<CL>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.65	25	2.00	2.12		
▲	1.66	26	4.00	2.57		
■	1.65	24	6.00	3.03		

TRIAXIAL TEST RESULT

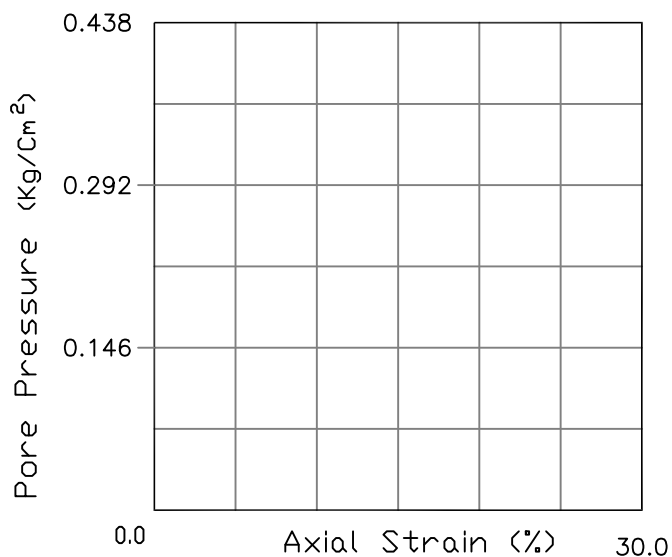
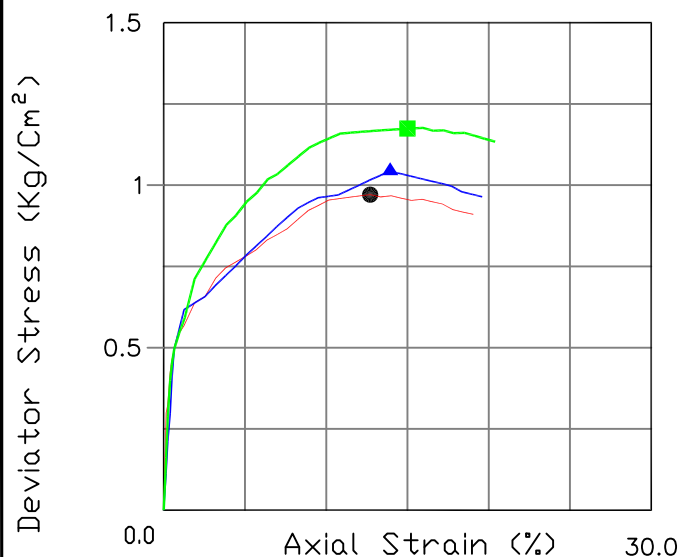


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
19

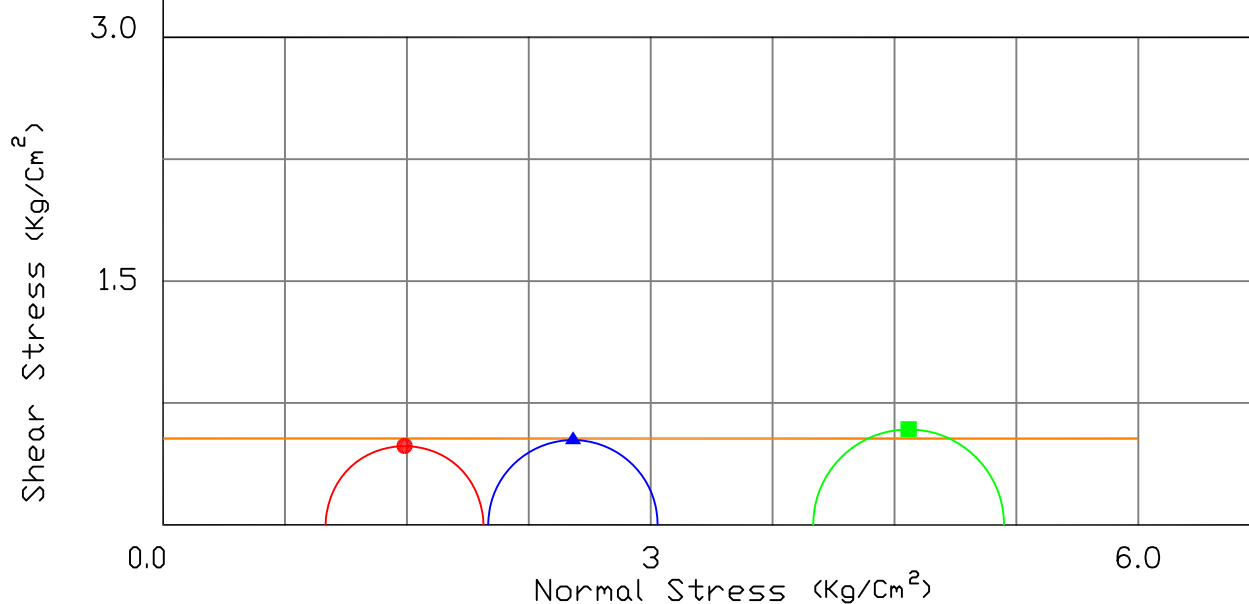
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.53 Kg/Cm ²
----- EFFECTIVE STRESS		Ø = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-164	U08	19.50-20.00	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.69	25	1.00	0.97		
▲	1.65	26	2.00	1.04		
■	1.63	26	4.00	1.17		

TRIAXIAL TEST RESULT

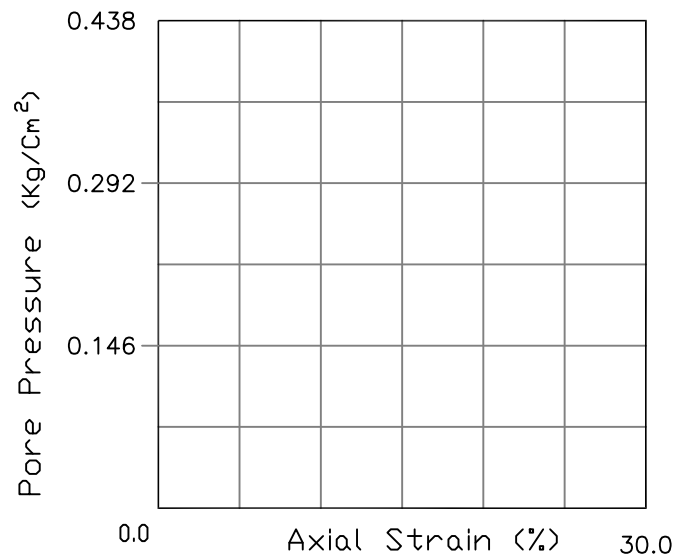
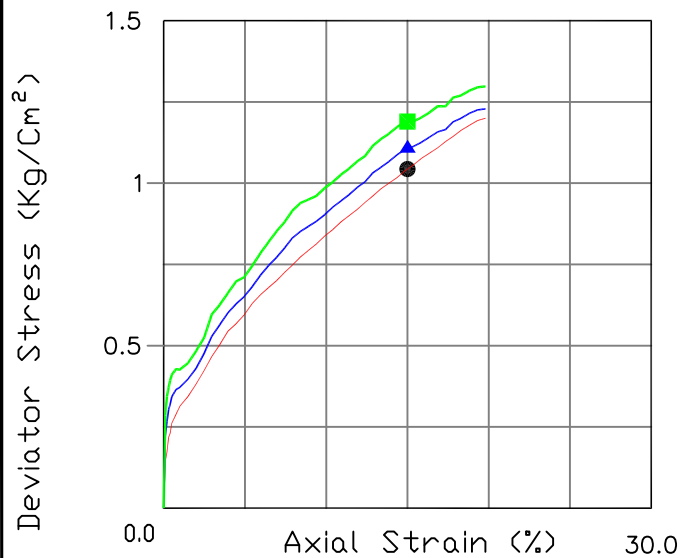


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
20

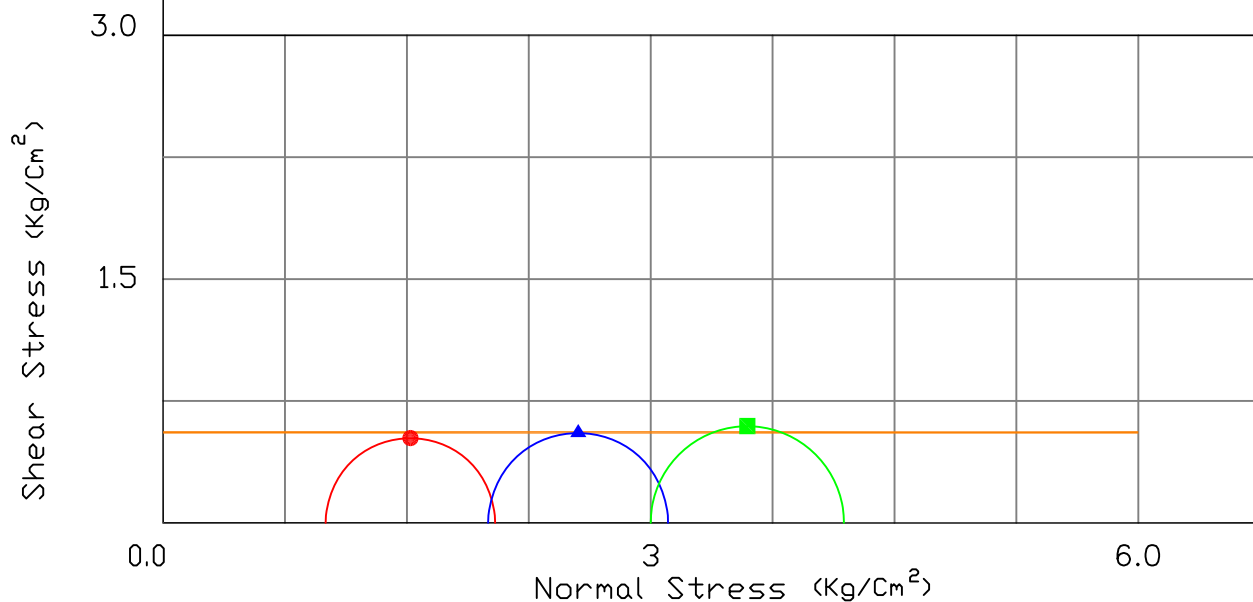
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.56 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-180	U01	6.00-6.50	CL

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.76	24	1.00	1.04	1.00	
▲	1.74	23	2.00	1.11	1.00	
■	1.77	24	3.00	1.19	1.00	

TRIAXIAL TEST RESULT

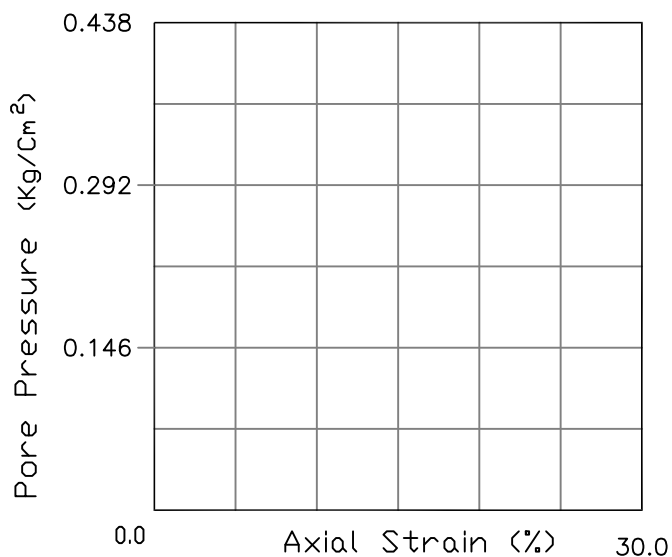
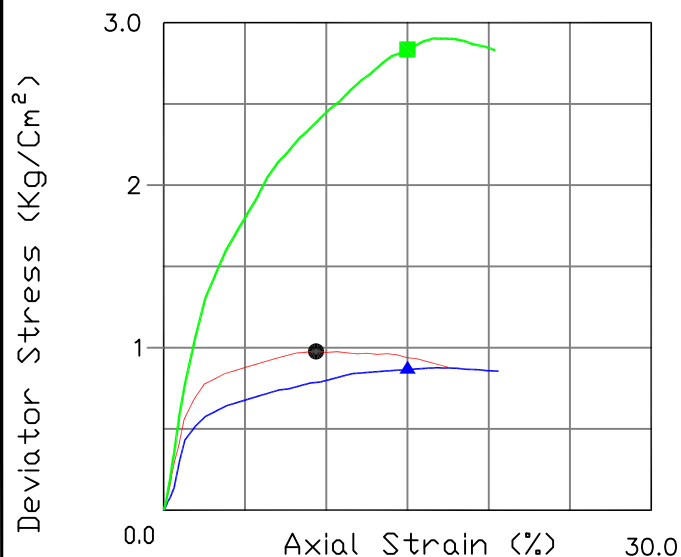


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
21

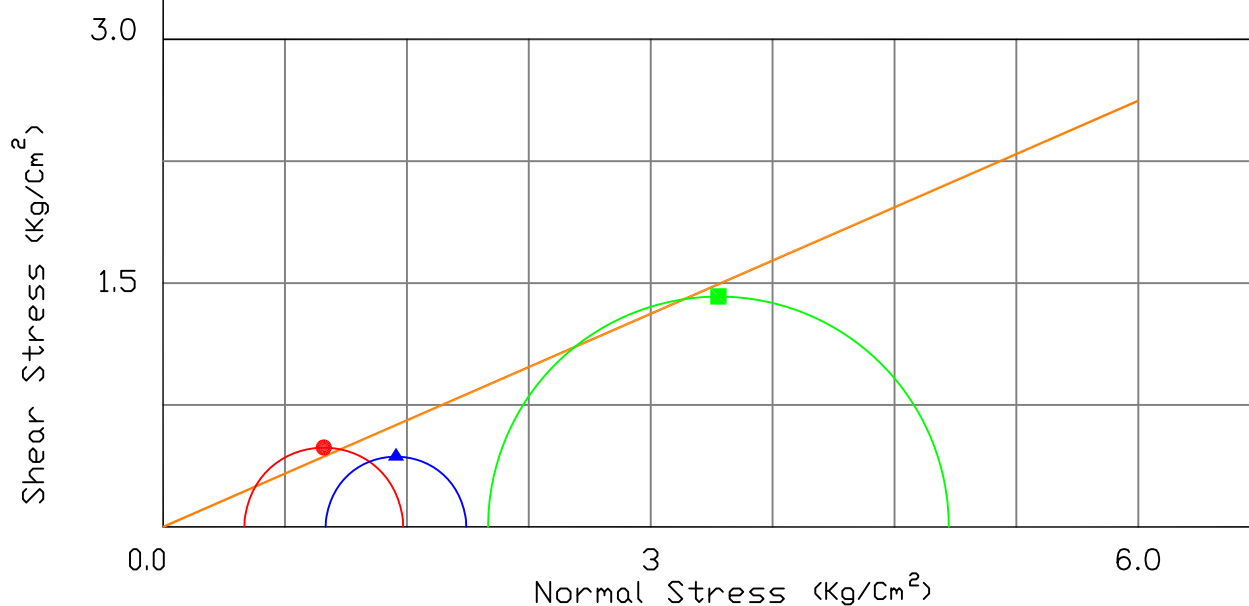
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.00 Kg/Cm ²
----- EFFECTIVE STRESS		Ø = 24°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-185	U01	3.50-4.00	<CL-ML/CL>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.57	26	0.50	0.98		
▲	1.56	25	1.00	0.87		
■	1.57	26	2.00	2.83		

TRIAXIAL TEST RESULT

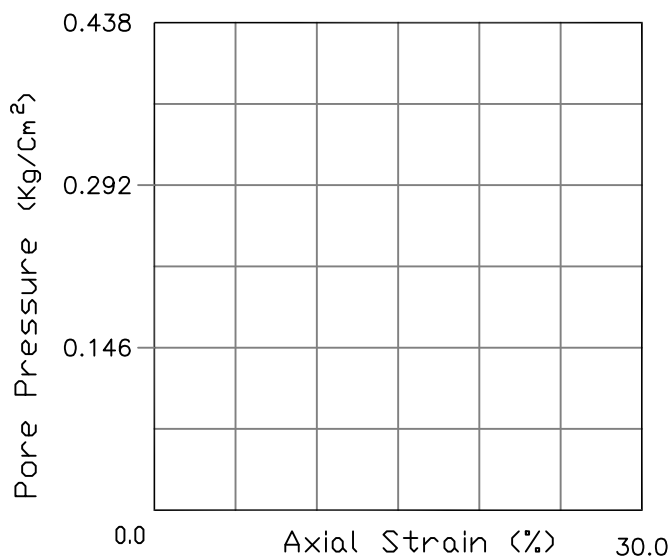
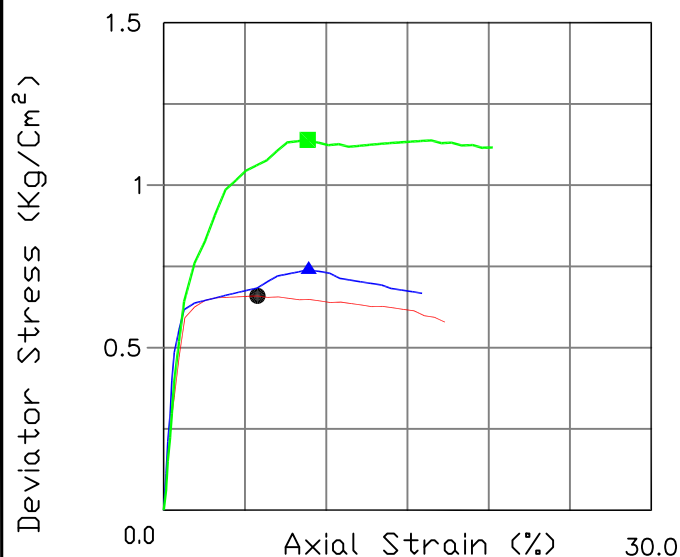


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
22

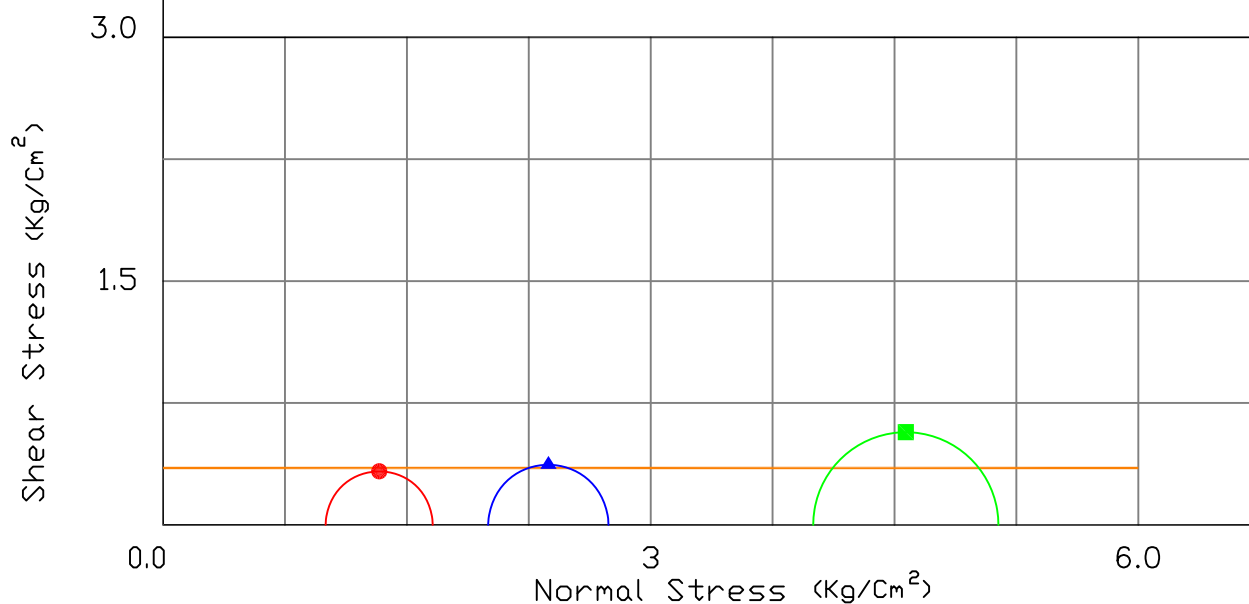
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



— TOTAL STRESS	TEST TYPE	C = 0.35 Kg/Cm ²
-----EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS : SAMPLE < ■ > NOT HOMOGENEOUS



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-202	U11	26.00-26.50	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.64	26	1.00	0.66		
▲	1.70	22	2.00	0.74		
■	1.61	26	4.00	1.14		

TRIAXIAL TEST RESULT

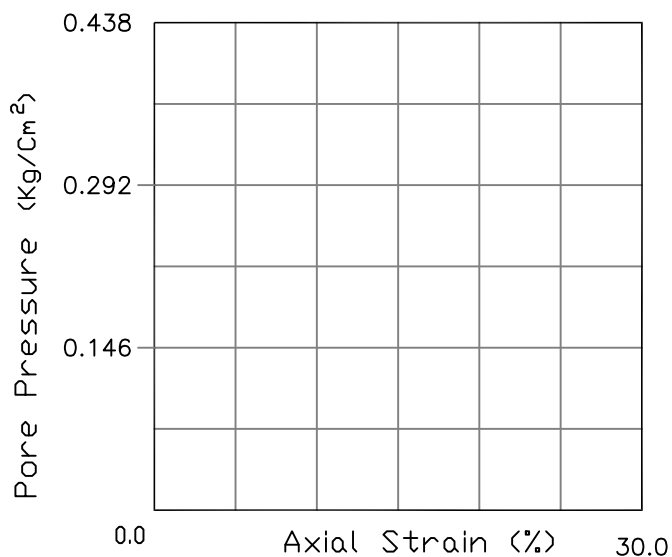
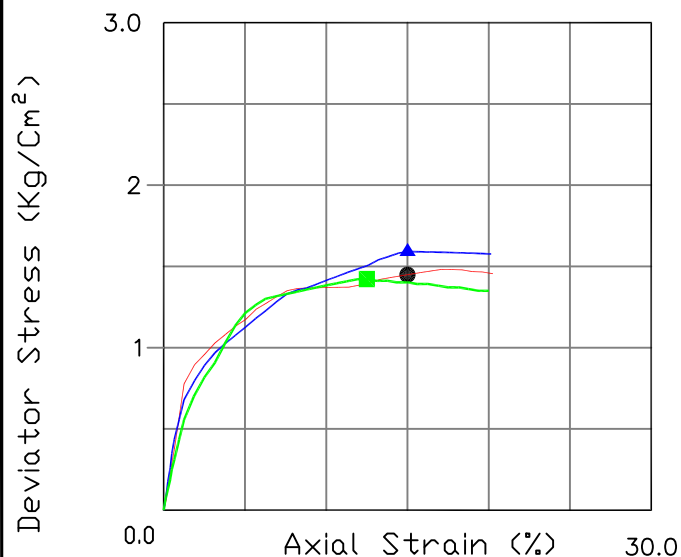


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
23

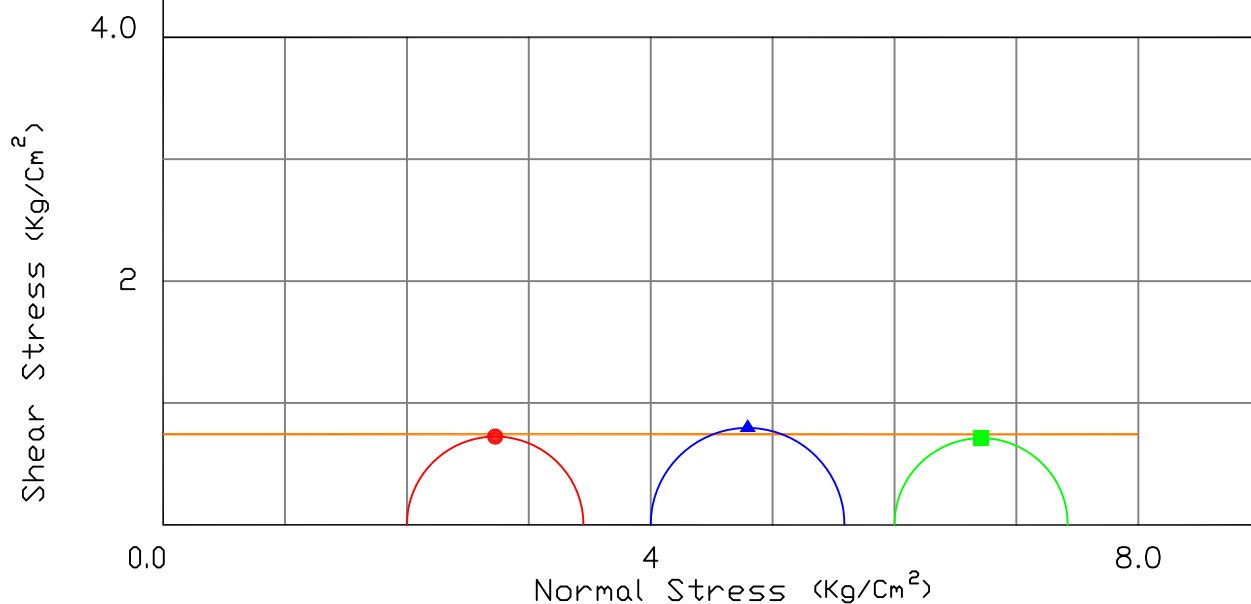
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.74 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-202	CB02	30.00-30.50	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.66	22	2.00	1.45		
▲	1.65	22	4.00	1.59		
■	1.70	22	6.00	1.42		

TRIAXIAL TEST RESULT

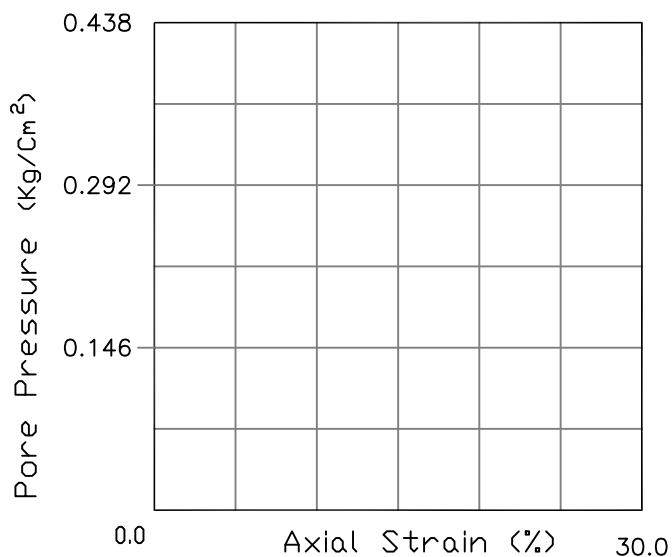
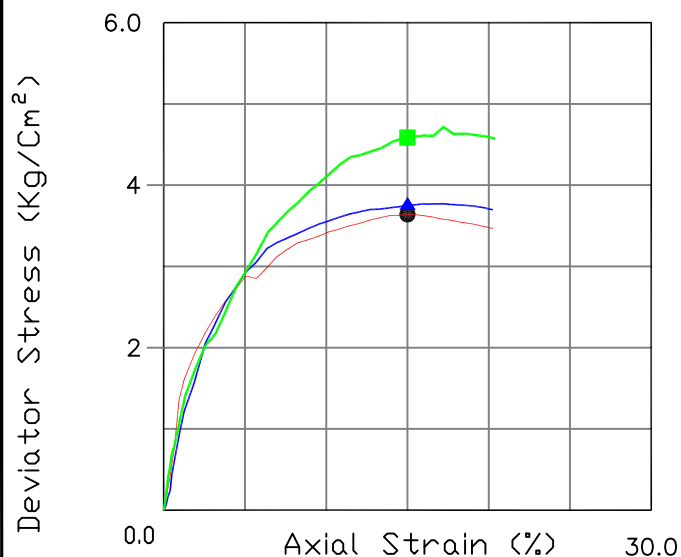


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
24

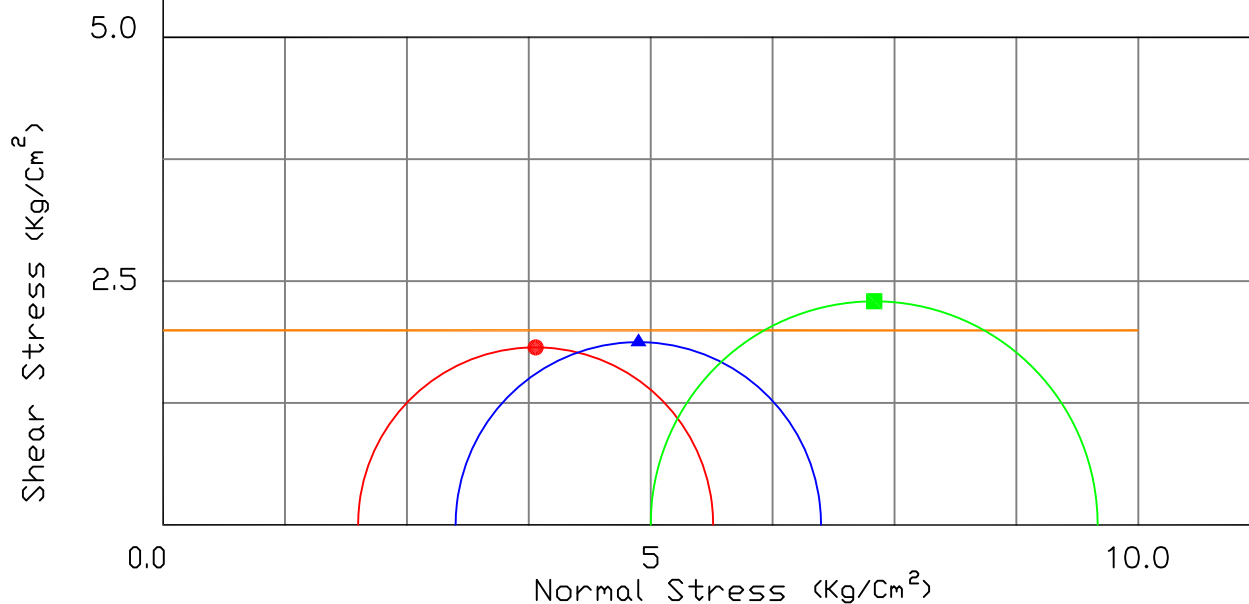
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 2.00 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-202	CB03	32.00-32.50	<ML/CL>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.73	20	2.00	3.64		
▲	1.77	21	3.00	3.75		
■	1.74	20	5.00	4.58		

TRIAXIAL TEST RESULT

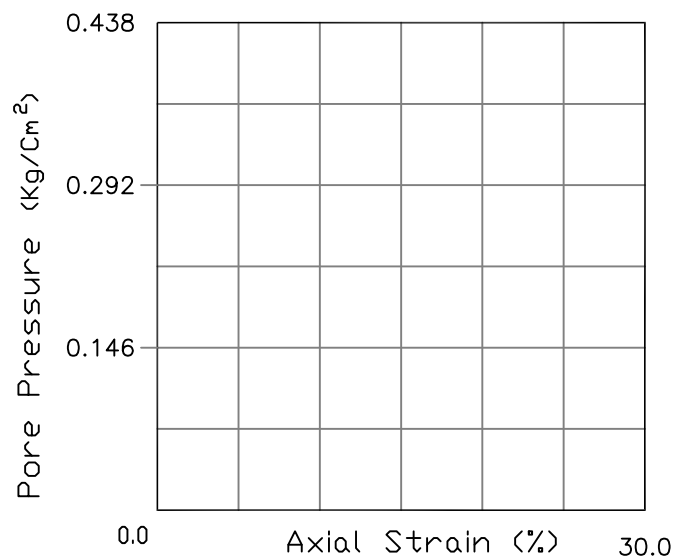
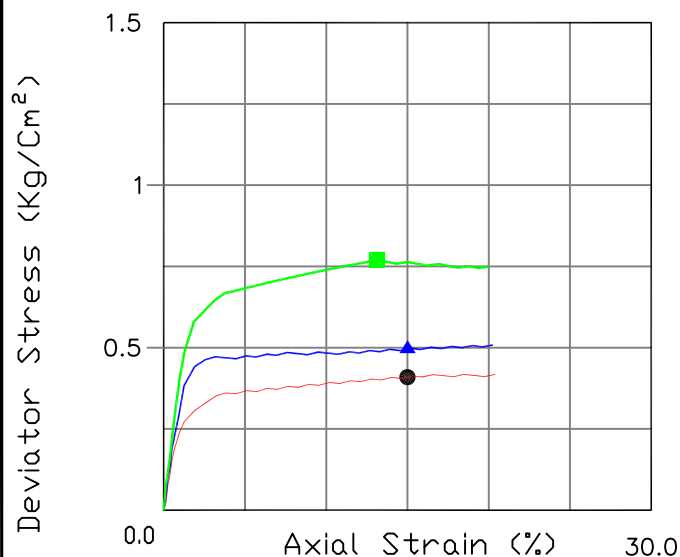


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
25

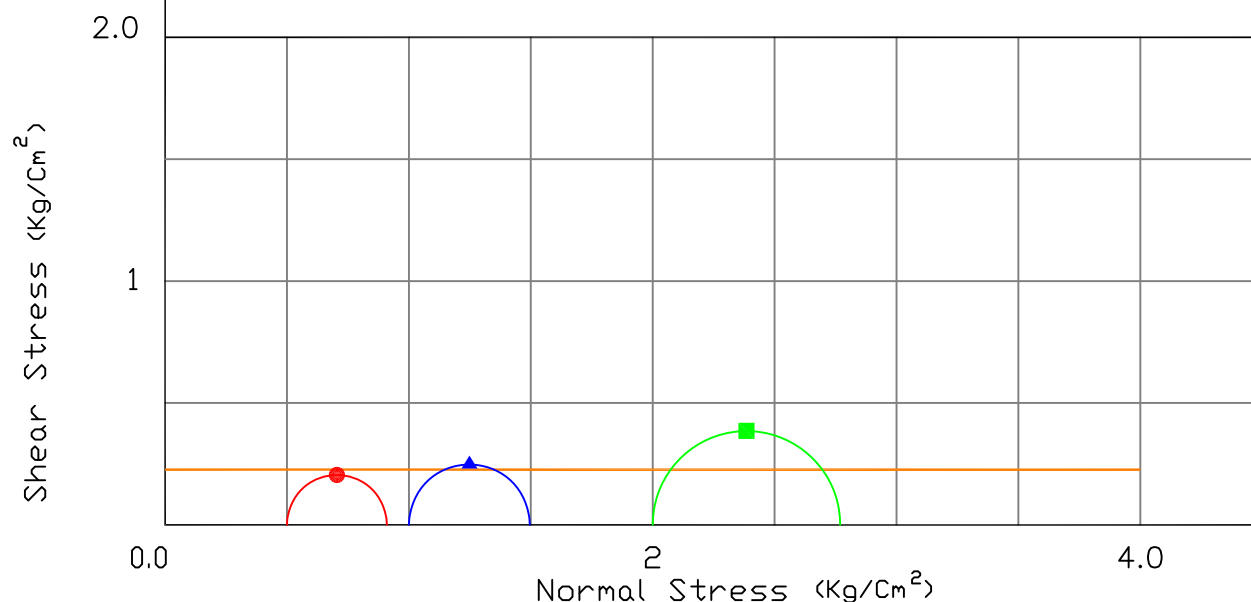
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.23 Kg/cm ²
----- EFFECTIVE STRESS		∅ = 0°
	Unconsolidated Undrained	

REMARKS : SAMPLE < ■ > NOT HOMOGENEOUS



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-237	U04	14.50-15.00	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.73	22	0.50	0.41		
▲	1.69	27	1.00	0.50		
■	1.67	27	2.00	0.77		

TRIAXIAL TEST RESULT

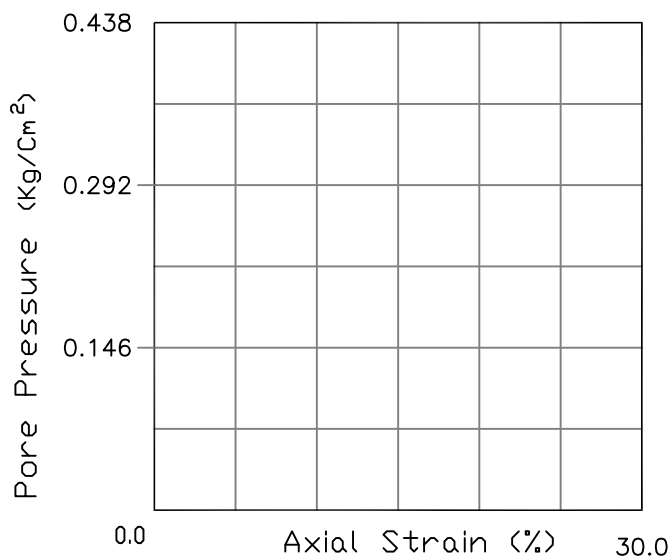
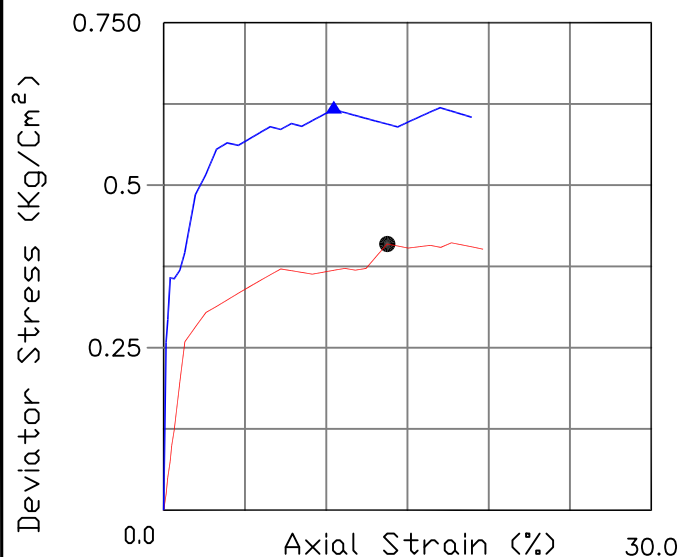


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
26

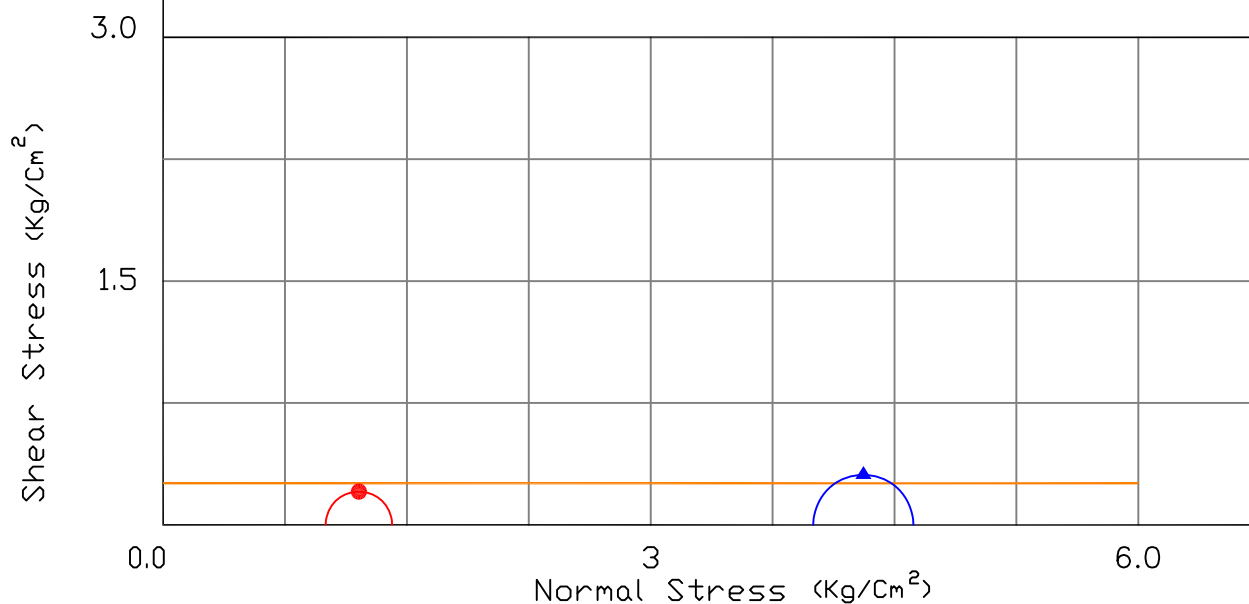
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



— TOTAL STRESS	TEST TYPE	C = 0.26 Kg/Cm ²
- - - - - EFFECTIVE STRESS	Unconsolidated Undrained	φ = 0°

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-254	U09	20.00-20.50	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.67	27	1.00	0.41		
▲	1.67	26	4.00	0.62		
■						

TRIAXIAL TEST RESULT

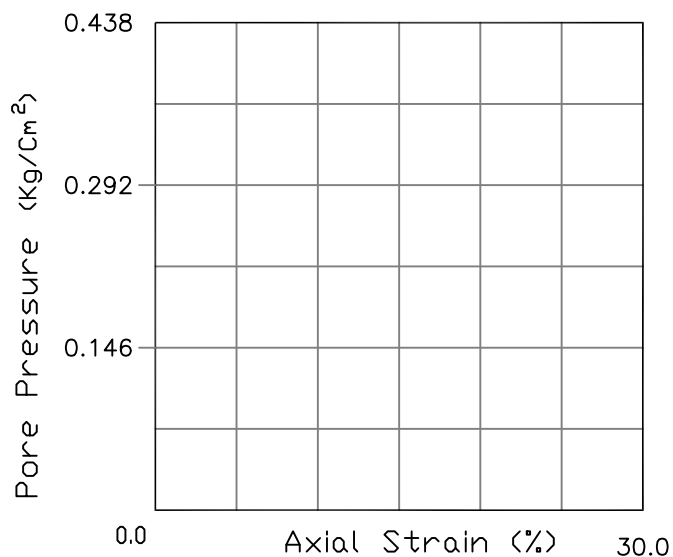
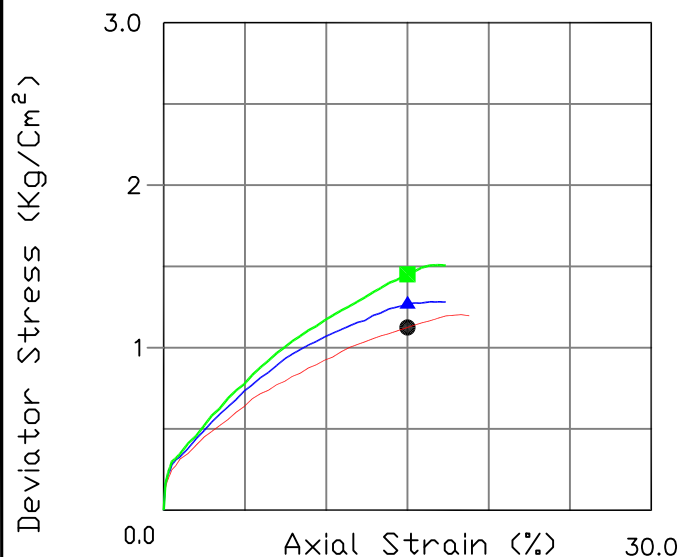


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
27

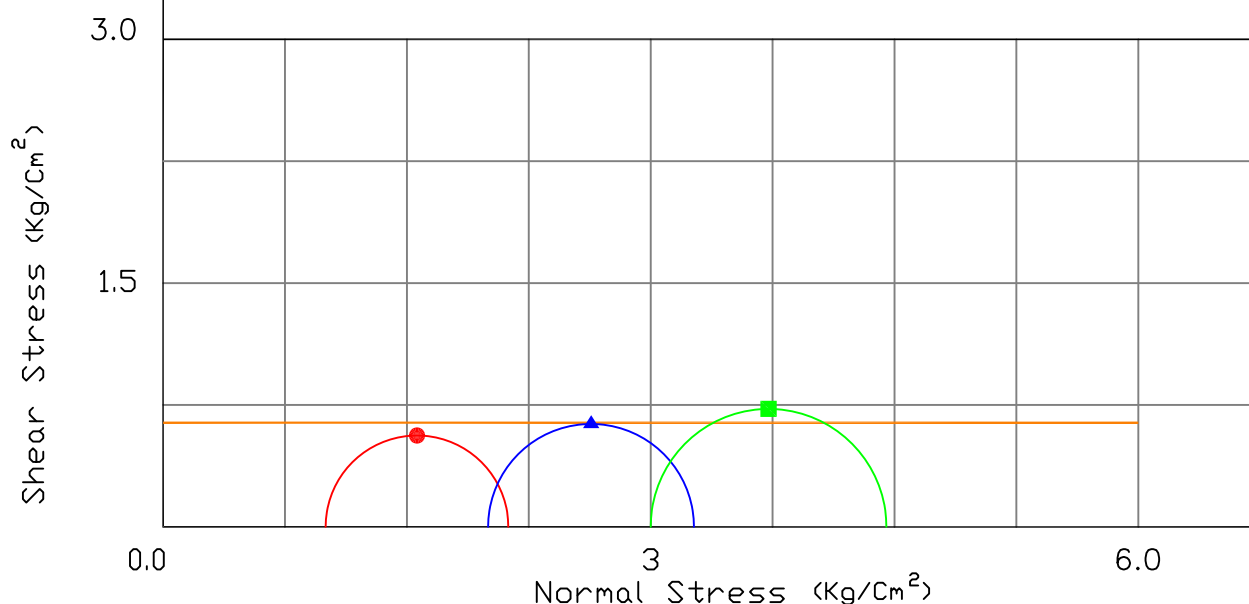
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.64 Kg/cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-273	U01	4.50-5.00	CL

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.60	25	1.00	1.12	1.00	
▲	1.61	26	2.00	1.27	1.00	
■	1.61	27	3.00	1.45	1.00	

TRIAXIAL TEST RESULT

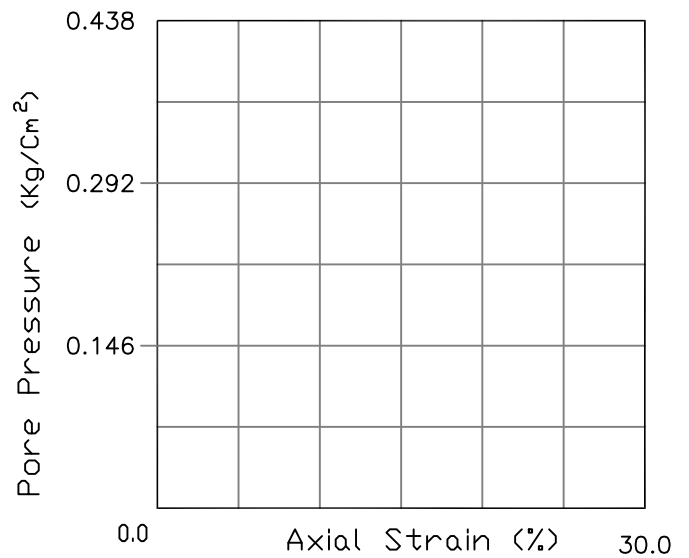
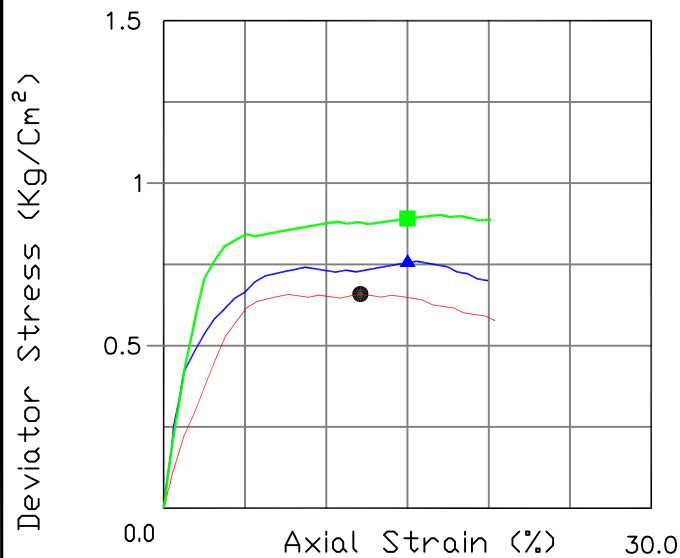


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
28

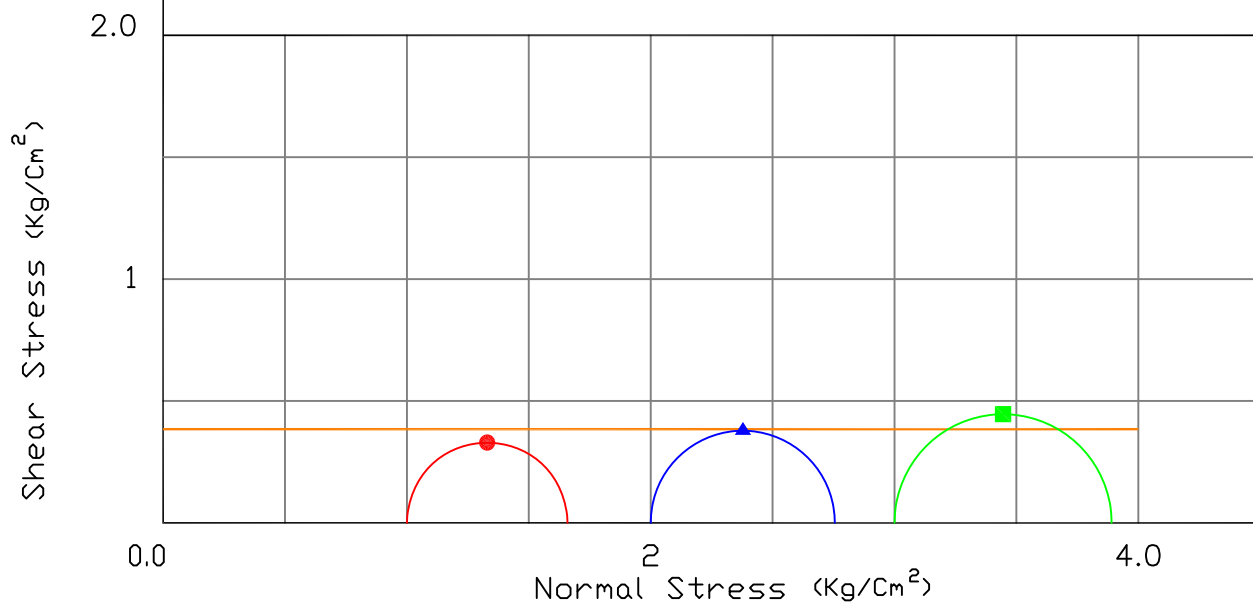
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.38 Kg/Cm ²
----- EFFECTIVE STRESS		ϕ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-273	U03	9.50-10.00	<CL/ML>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.73	23	1.00	0.66		
▲	1.67	26	2.00	0.76		
■	1.75	22	3.00	0.89		

TRIAXIAL TEST RESULT

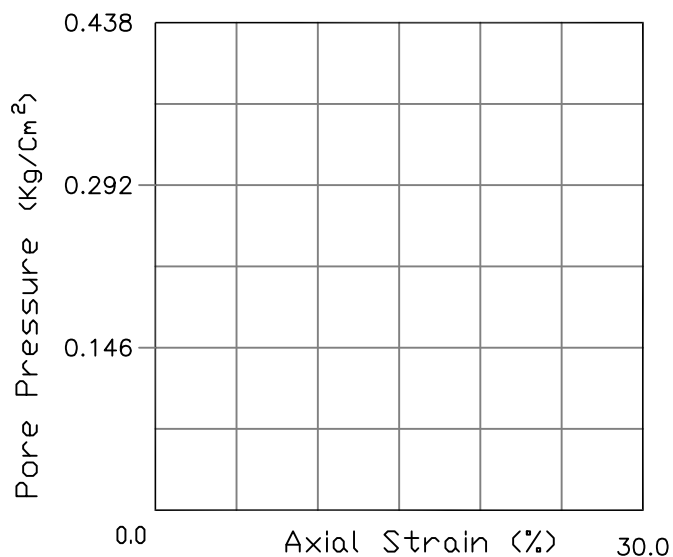
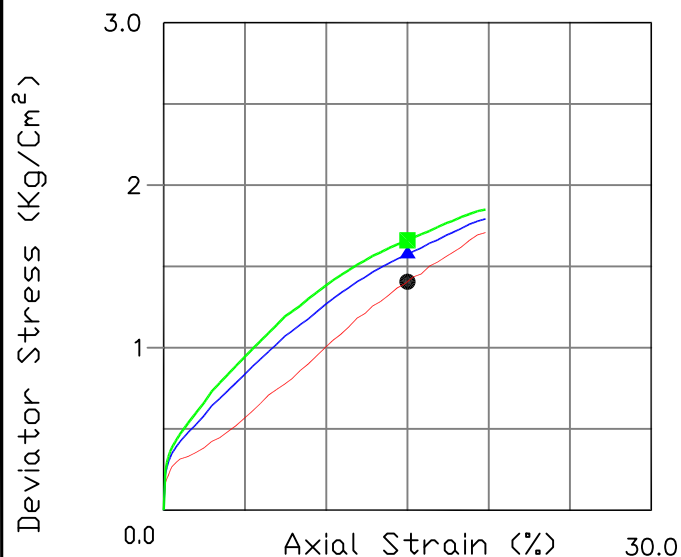


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
29

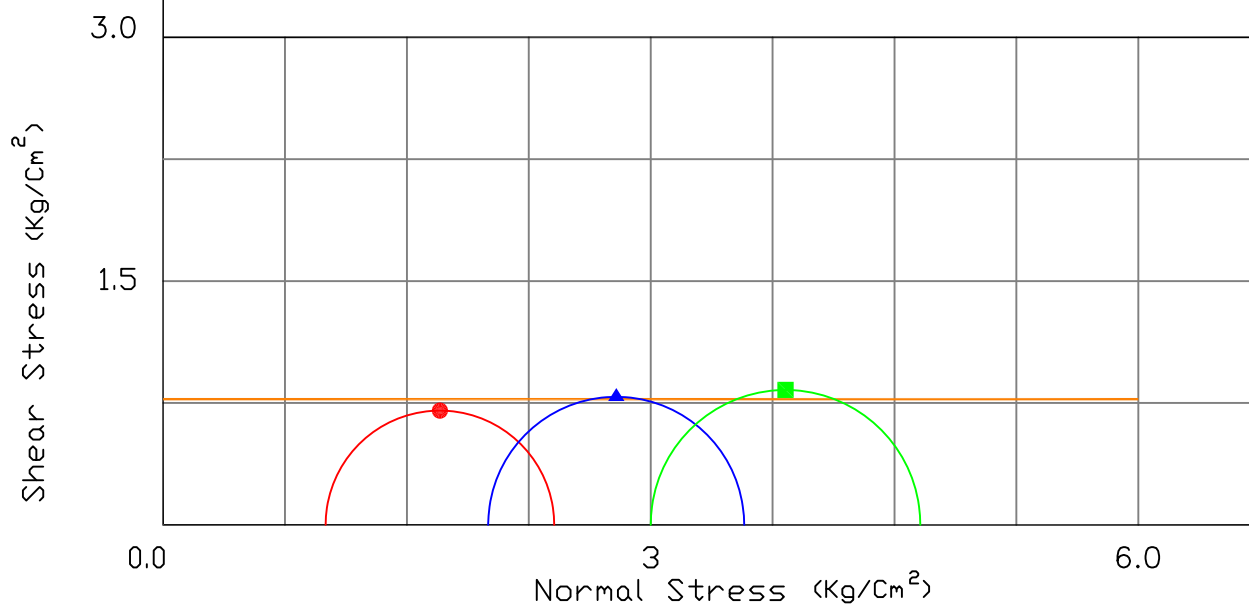
SOIL ENGINEERING SERVICES CONSULTING ENGINEERS

PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.77 Kg/cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-282	U03	8.00-8.50	CL

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.60	21	1.00	1.41	1.00	
▲	1.63	22	2.00	1.57	1.00	
■	1.60	24	3.00	1.66	1.00	

TRIAXIAL TEST RESULT

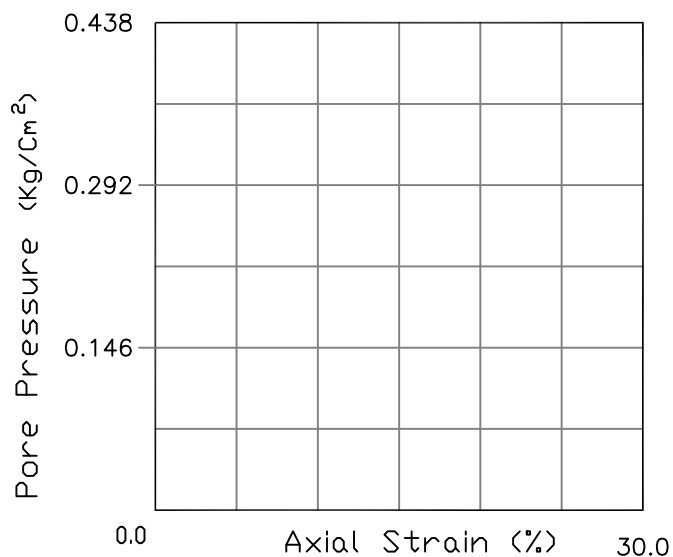
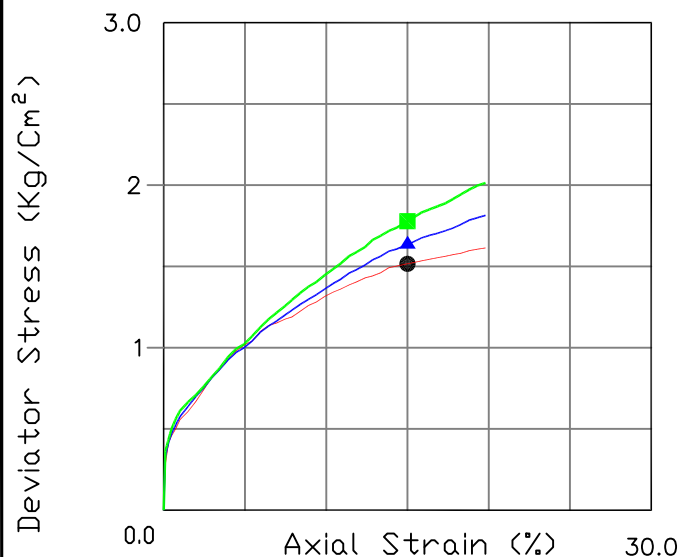


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
30

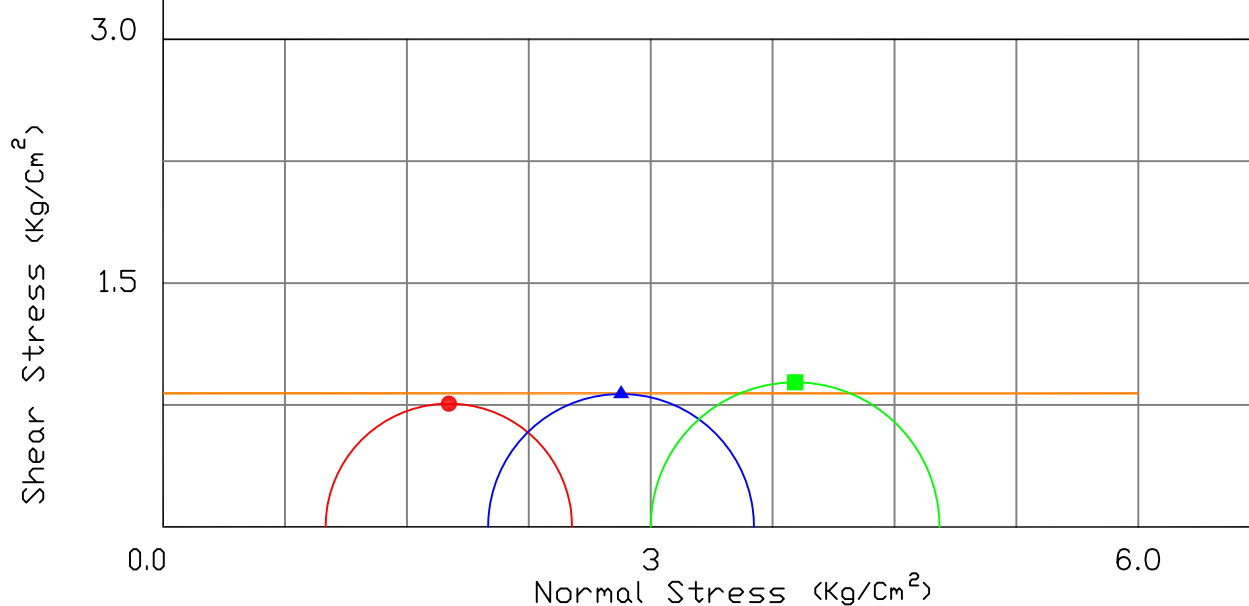
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PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.82 Kg/cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-282	U07	16.00-16.50	CL

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.63	24	1.00	1.52	1.00	
▲	1.63	24	2.00	1.64	1.00	
■	1.60	25	3.00	1.78	1.00	

TRIAXIAL TEST RESULT

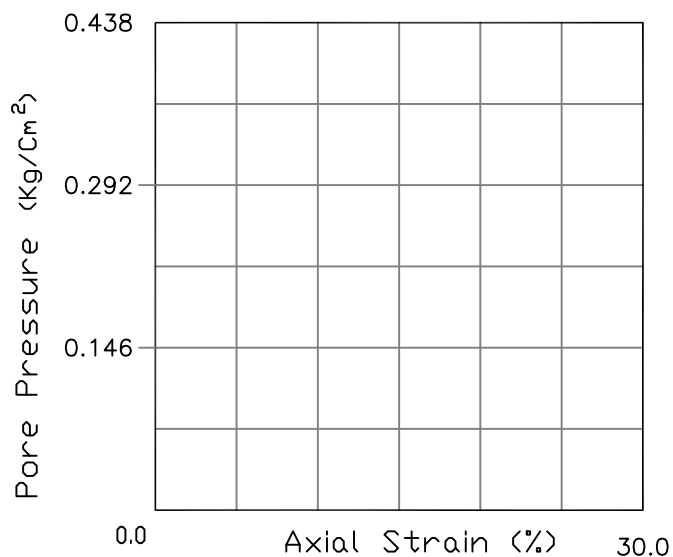
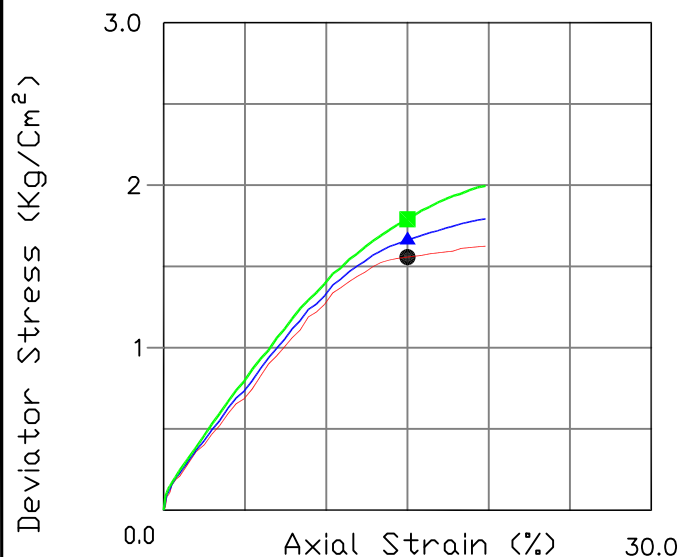


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
31

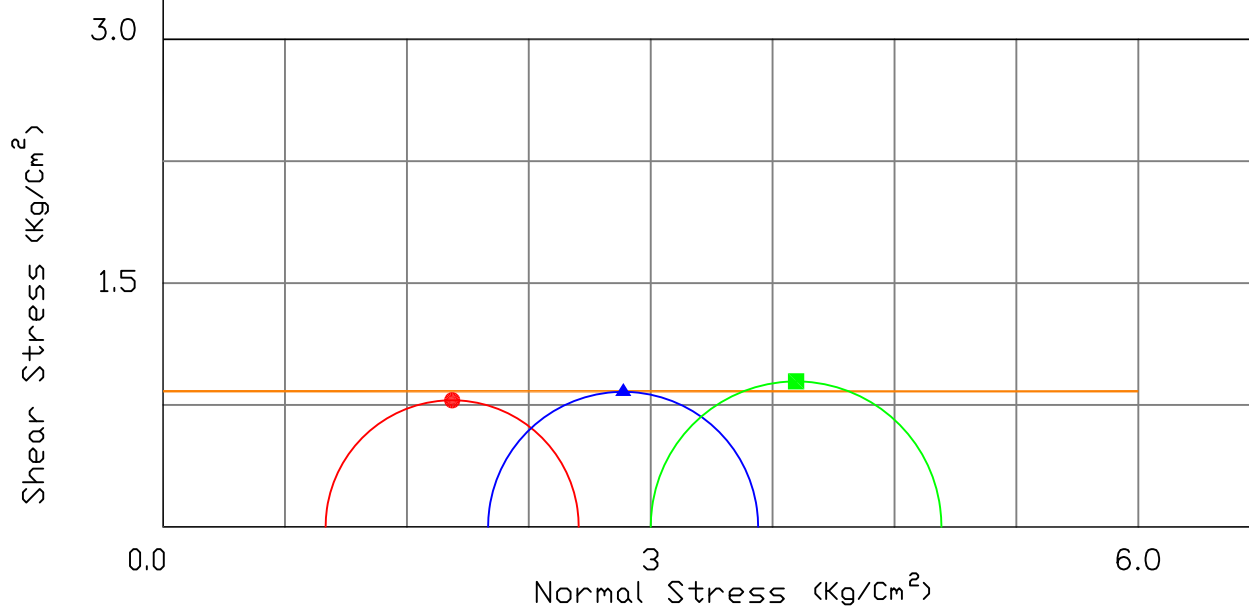
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PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.83 Kg/cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-298	U07	20.00-20.50	CL

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.84	21	1.00	1.56	1.00	
▲	1.84	21	2.00	1.66		
■	1.85	22	3.00	1.79		

TRIAXIAL TEST RESULT

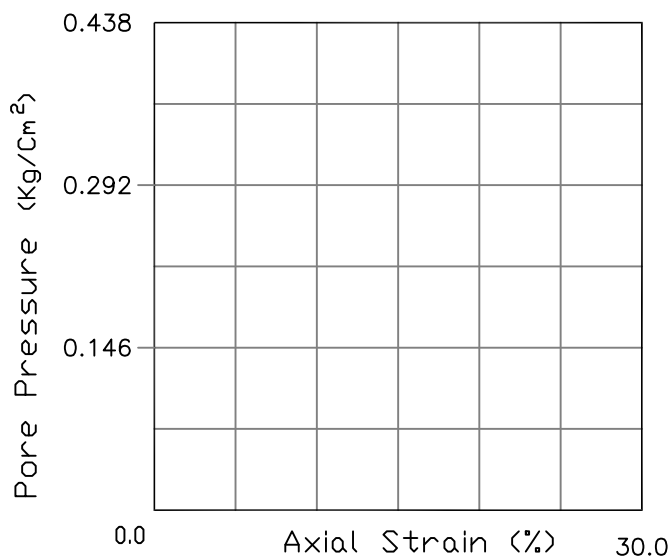
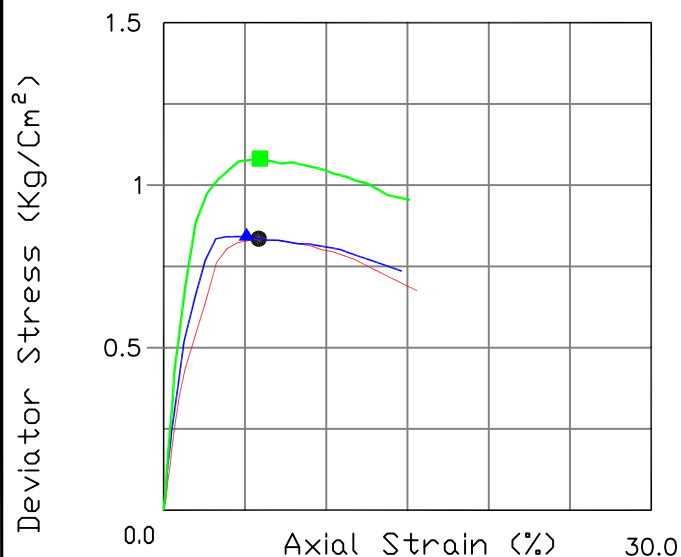


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
32

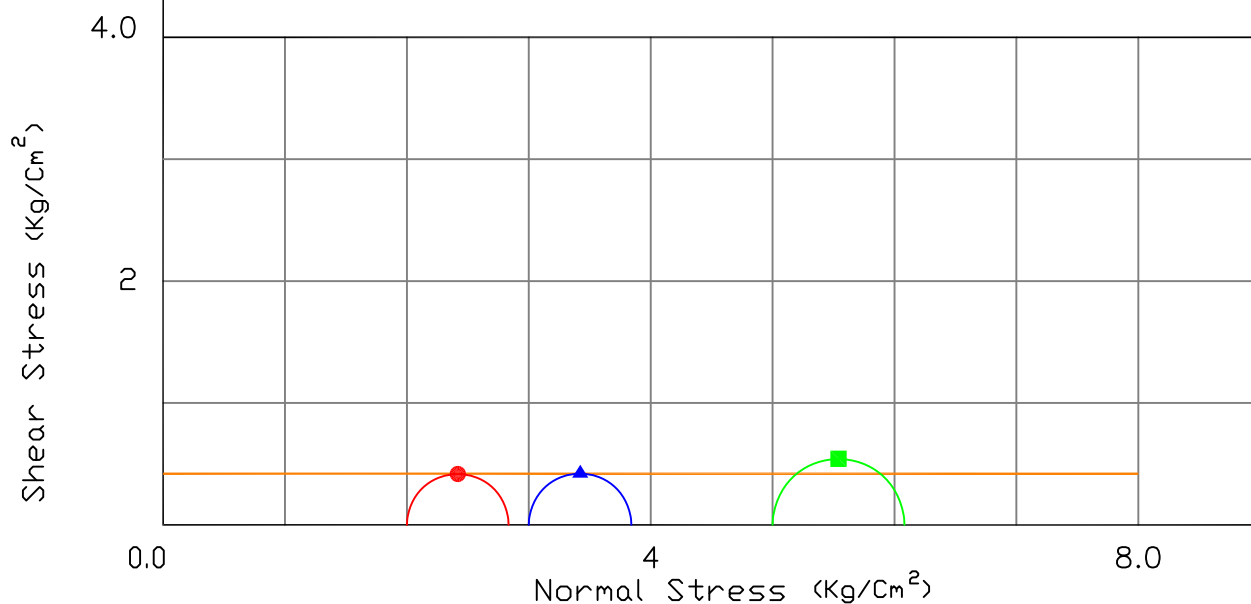
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PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 0.42 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS : SAMPLE < ■ > NOT HOMOGENEOUS



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-317	U06	20.00-20.45	<CL>

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.56	29	2.00	0.84		
▲	1.56	29	3.00	0.84		
■	1.56	29	5.00	1.08		

TRIAXIAL TEST RESULT

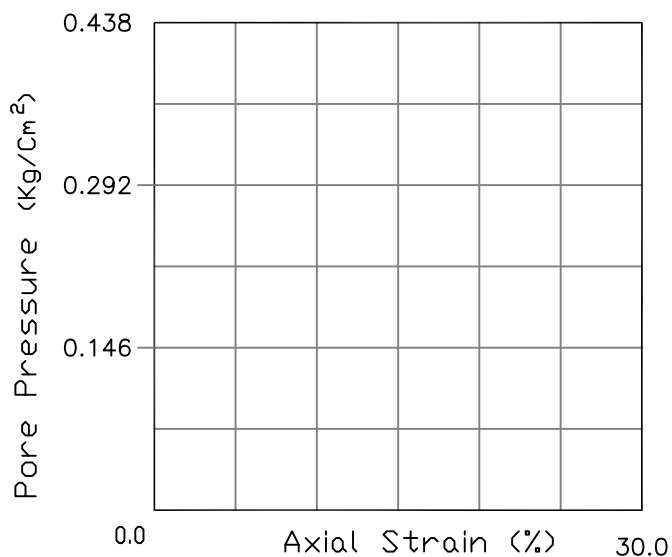
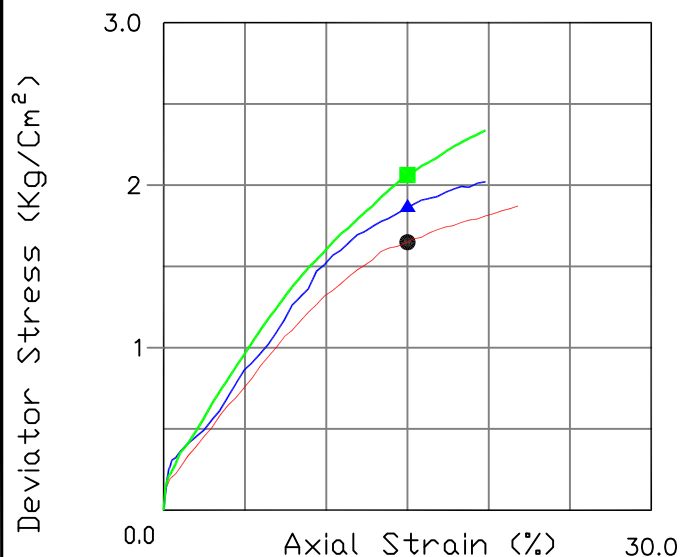


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
33

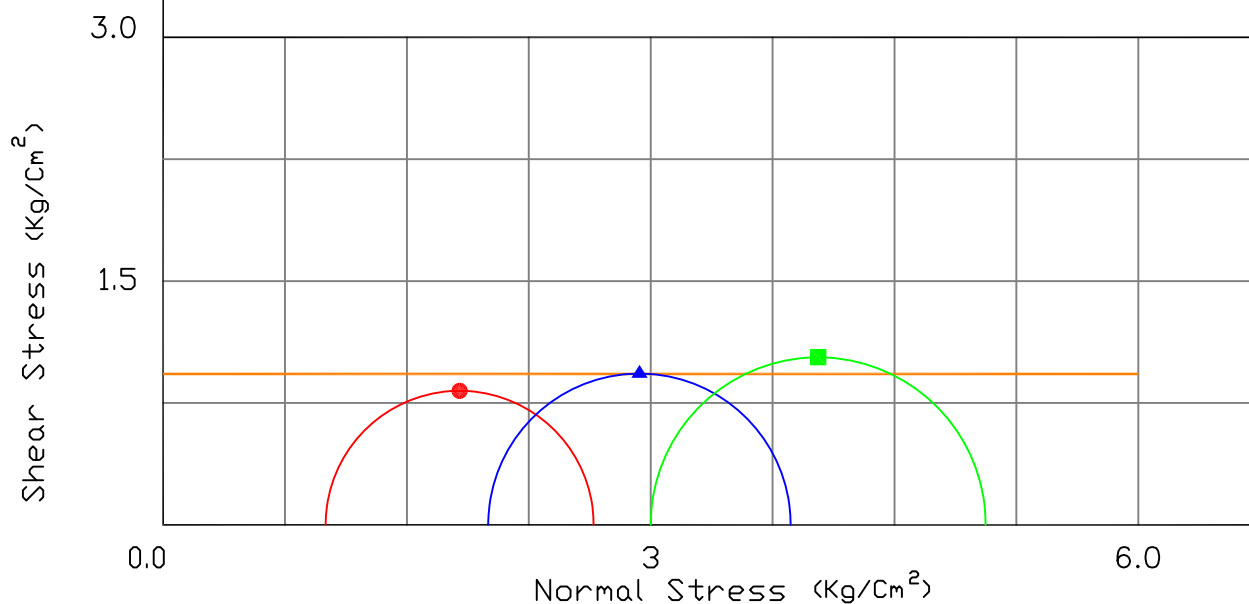
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PROJ. No.: 1347



— TOTAL STRESS	TEST TYPE	C = 0.93 Kg/Cm ²
- - - - - EFFECTIVE STRESS		
	Unconsolidated Undrained	φ = 0°

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-337	U02	6.00-6.50	CL

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.64	24	1.00	1.65	1.00	
▲	1.62	25	2.00	1.86	1.00	
■	1.67	23	3.00	2.06	1.00	

TRIAXIAL TEST RESULT

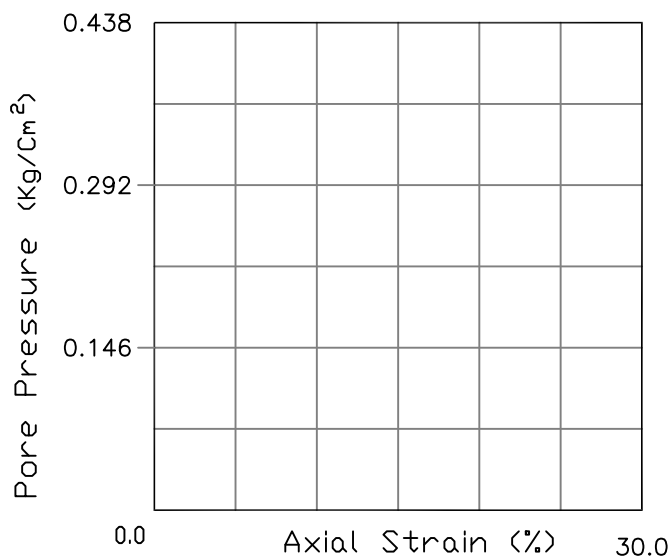
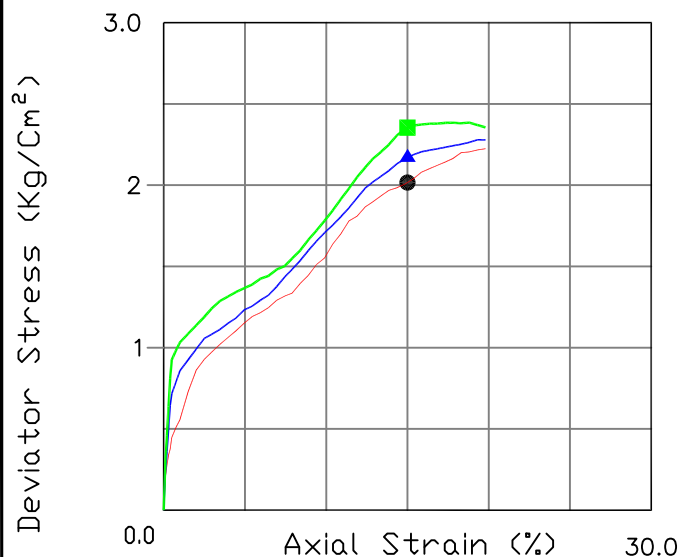


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
34

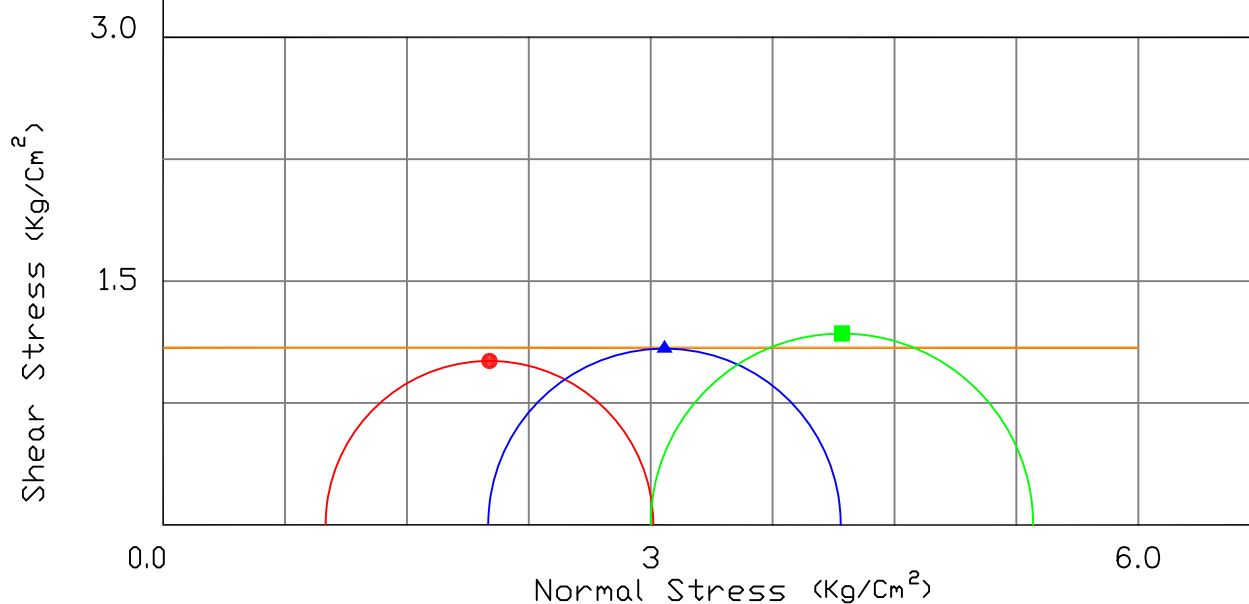
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—— TOTAL STRESS	TEST TYPE	C = 1.09 Kg/cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-337	U14	30.00-30.50	CL

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.59	22	1.00	2.02	1.00	
▲	1.60	23	2.00	2.17	1.00	
■	1.60	21	3.00	2.35	1.00	

TRIAXIAL TEST RESULT

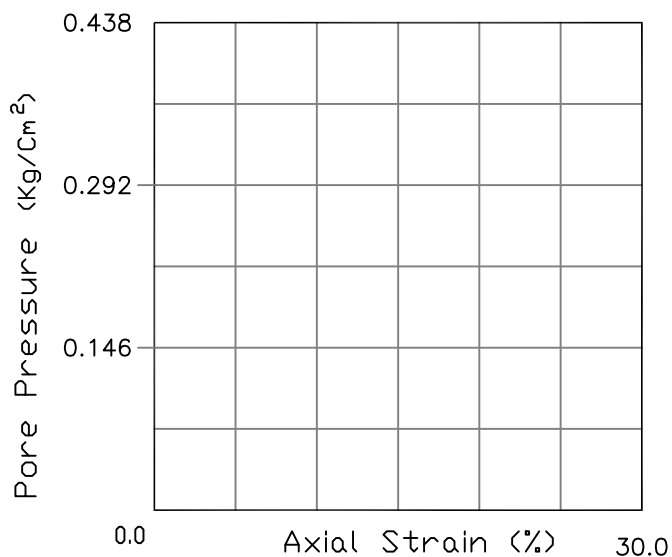
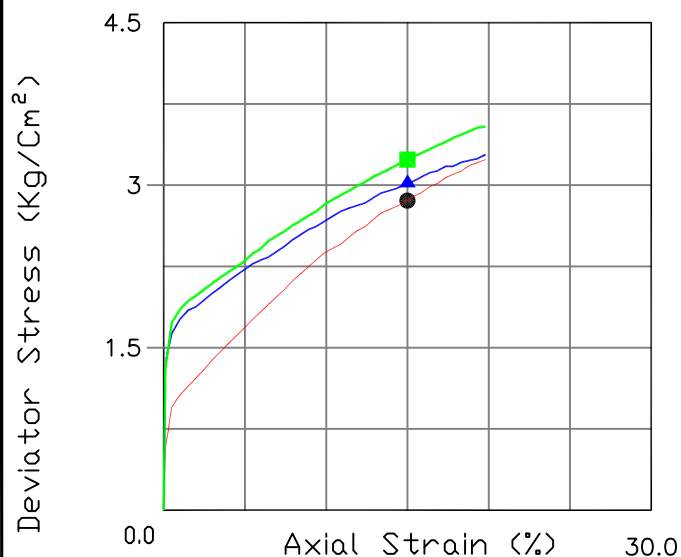


PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
35

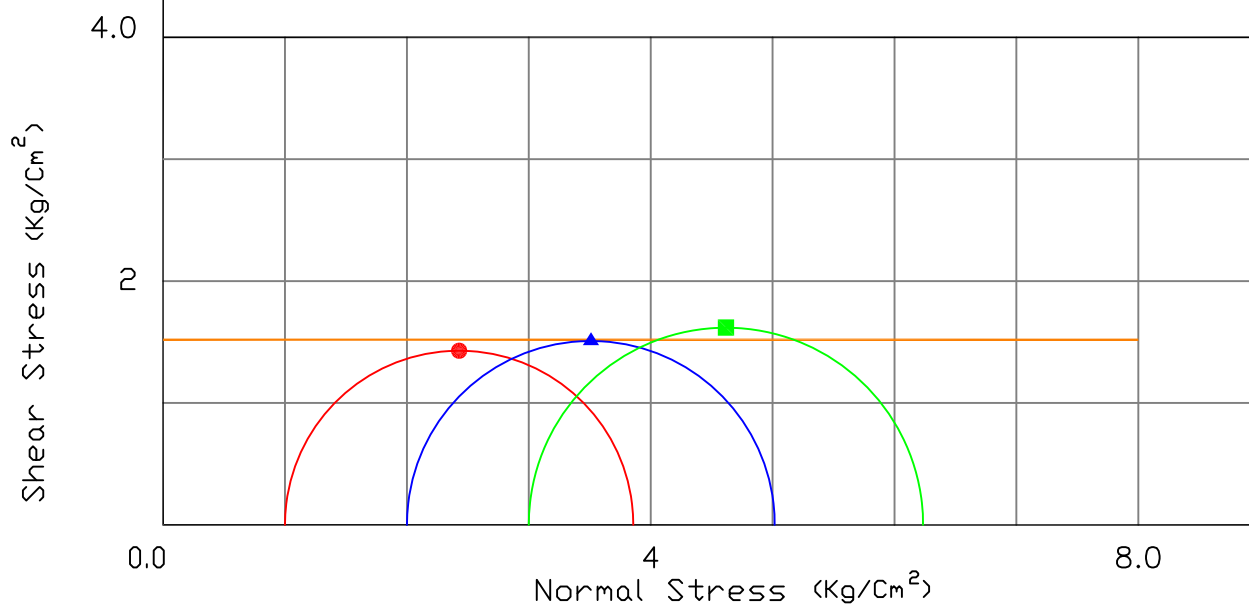
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PROJ. No.: 1347



—— TOTAL STRESS	TEST TYPE	C = 1.52 Kg/Cm ²
----- EFFECTIVE STRESS		∅ = 0°
Unconsolidated Undrained		

REMARKS :



BORING No.	SAMPLE No.	DEPTH	SOIL TYPE
BH-337	U16	34.00-34.50	CL

SYM-BOL	DRY DENSITY (gr/Cm ³)	MOISTURE CONTENT %	CONFINING PRESSURE (Kg/Cm ²)	MAXIMUM STRESS DEVIATOR (Kg/Cm ²)	STRAIN RATE % / Min.	BACK PRESSURE (Kg/Cm ²)
●	1.63	22	1.00	2.86	1.00	
▲	1.64	22	2.00	3.02	1.00	
■	1.63	21	3.00	3.23	1.00	

TRIAXIAL TEST RESULT



PROJECT : SOUTH ALUMINUM SMELTER PLANT
CLIENT : NFC

FIGURE No.
36

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PROJ. No.: 1347