Test Performed by: .S. Asad Ali Gillani

Kashif Riaz
& Associates Faisalabad.
(Construction of Fountain House Sargodha)
Client Reference No.: Nil Dated: 11-03-2024
SOM Lab Ref: CED/SOM/3785 (Page 2/2) Dated: 11-03-2024

Sample Type: Deformed Bars
Test Type: Hardness Test

Hardness Test Details:
Machine used: Avery Rockwell Hardness Testing Machine
(Minor Load: 10 Kgf Major Load: 140.0 kgf Scale: B)

Hardness Test Results

Sample No.	Sample Type	Hardness avg
1	# 8 Deformed Bar	HR – 96.33– B
2	# 6 Deformed Bar	HR – 97.33– B
3	# 4 Deformed Bar	HR – 83.33– B
4	# 3 Deformed Bar	HR – 73.83– B

Note: Please always confirm the results on web www.uet-civil.edu.pk

Client Reference No.: PCP/KWL-104/2024 **Dated:** 06-03-2024

SOM Lab Ref: CED/SOM/3788 **Dated:** 11-03-2024

Test Type: Load Test of RPC Manhole Cover (M/S Al-Shan Construction Company Multan)

Test Standard: Non-standard test was performed as per requirement of the client [Application of load at the center of the Manhole Cover through circular thick steel plate of 380mm diameter]

Test Performed by: Dr. Asad Ali Gillani

Saeed Ahmad,
ARE Punjab Cities Program Package-V (MMP)
Comprehensive Sewerage System in Khanewal City Under Punjab Cities Program (PCP)

This is with reference to your above-mentioned letter and SOM receipt No. 3788 dated: 11-03-2024. The sample of RPC Manhole Cover submitted in the Laboratory has been tested and the result is provided below.

Load Test Result

Sr No	Weight of Manhole Cover with Ring	Diameter of Manhole Cover	Average Thickness of Manhole Cover	Maximum Load	Observations/Remarks
1	5530 kg	640 mm	65.5mm	20500 kg	The sample was cracked at this load
2	4845 kg	640 mm	55.0mm	12900 kg	The sample was cracked at this load

Witnessed by: Waseem Ahmed Hashmi (RE/MMP/AID), Shahbaz Ali (Sub Engr. MC Khanewal), Muhammad Amjad Iqbal (DPO-ID PMDFC Lahore), M. Aslam (Contractor-Al Shan)

M.Arslan Khaleel

Amanah Noor Residence Model Town, Lahore.

Test Performed By: **Dr. /Engr.** Asad Ali Gillani

Client Reference: Nil

Dated: 11-03-2024

SOM Lab Ref: 3782 (Page-1/1)

Dated: 11-03-2024

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.670	8	1.000	0.79	0.785	24.54	33.13	68500	68940	92490	93080	1.50	8.0	18.8	
2	1.477	6	0.743	0.44	0.434	16.16	19.54	80990	82110	97950	99300	1.10	8.0	13.8	
3	0.731	4	0.523	0.20	0.215	7.72	9.09	85100	79160	100270	93270	1.30	8.0	16.3	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Syed Yasir Ali Sherazi,AR **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

NETRACON Tech.(500kV D/C T/Line From 500kV Tarbela 5th Extn Switchyard to 765/500kV Isb)

Client Reference: NTT-HO/T5/2024/SI-024 **SOM Lab Ref:** 3783 (Page-1/1)

Dated: 08-03-2024 **Dated:** 11-03-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Fazal Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	3.435	9	1.133	1.00	1.009	34.98	44.97	77160	76470	99190	98310	1.20	8.0	15.0	
2	3.360	9	1.121	1.00	0.987	37.00	46.30	81610	82690	102110	103460	1.30	8.0	16.3	
3	2.655	8	0.997	0.79	0.780	25.10	34.76	70070	70960	97040	98290	1.50	8.0	18.8	
4	2.650	8	0.996	0.79	0.779	24.97	34.91	69720	70710	97470	98850	1.40	8.0	17.5	
5	1.984	7	0.862	0.60	0.583	20.39	26.47	74940	77130	97310	100150	1.40	8.0	17.5	
6	1.998	7	0.865	0.60	0.587	20.13	27.70	74000	75640	101810	104060	1.30	8.0	16.3	
7	1.481	6	0.744	0.44	0.435	15.29	19.72	76640	77530	98870	100010	1.30	8.0	16.3	
8	1.474	6	0.743	0.44	0.433	15.29	19.98	76640	77880	100150	101770	1.40	8.0	17.5	
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Witnessed By: Munawar Hussain Abbasi(R.E T/L T5C, TARBELA),Contractor (Netracon Technologies)

BEND TEST:

# 9	Sample bend through 180 degrees Satisfactorily without any crack
# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 7	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Twelve Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Allied Bank **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

Unit Head PMO ABL-UML-P#199-200.(Const Of ABL Upper Mall Lahore Plot No 199,200)

Client Reference: ABL-UML-QAQC;65 **SOM Lab Ref:** 3784 (Page-1/1)

Dated: 11-03-2024 **Dated:** 11-03-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar (FF Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.584	8	0.983	0.79	0.759	27.73	36.16	77410	80570	100940	105060	1.30	8.0	16.3	
2	2.589	8	0.984	0.79	0.761	28.29	36.60	78970	81980	102170	106060	1.20	8.0	15.0	
3	1.458	6	0.738	0.44	0.428	13.81	18.45	69240	71180	92480	95080	1.30	8.0	16.3	
4	1.461	6	0.739	0.44	0.429	14.02	18.81	70260	72060	94270	96690	1.50	8.0	18.8	
5	1.034	5	0.622	0.31	0.304	10.45	14.17	74340	75800	100810	102800	1.30	8.0	16.3	
6	1.042	5	0.624	0.31	0.306	10.67	14.34	75930	76920	102040	103370	1.40	8.0	17.5	
7	0.658	4	0.496	0.20	0.193	6.52	8.82	71940	74550	97230	100760	1.40	8.0	17.5	
8	0.657	4	0.496	0.20	0.193	6.54	8.84	72170	74790	97460	100990	1.30	8.0	16.3	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 5	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Twelve Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Kashif Riaz **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

& Associates Faisalabad.(Const. of Fountain House Sargodha)

Client Reference: Nil **SOM Lab Ref:** 3785 (Page-1/2)

Dated: 11-03-2024 **Dated:** 11-03-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.631	8	0.992	0.79	0.773	25.99	34.61	72570	74170	96620	98740	1.50	8.0	18.8	
2	2.641	8	0.994	0.79	0.776	26.10	34.73	72850	74170	96960	98710	1.50	8.0	18.8	
3	1.453	6	0.737	0.44	0.427	14.55	19.01	72910	75130	95290	98190	1.60	8.0	20.0	
4	1.448	6	0.736	0.44	0.426	14.34	18.91	71890	74260	94780	97900	1.40	8.0	17.5	
5	0.678	4	0.503	0.20	0.199	6.63	9.14	73070	73440	100830	101340	1.10	8.0	13.8	
6	0.672	4	0.501	0.20	0.197	6.65	9.07	73290	74410	100050	101570	1.30	8.0	16.3	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Nine Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Qasim Ali (Civil Engineer)
Expo Gold Lahore.

Test Performed By: **Dr. /Engr.** Asad Ali Gillani

Client Reference: Nil
Dated: 09-03-2024

SOM Lab Ref: 3786 (Page-1/1)
Dated: 11-03-2024

Test: Tension Test & Bend Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
Sample Type: Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.625	8	0.991	0.79	0.771	25.38	40.52	70860	72610	113120	115910	1.10	8.0	13.8	
2	2.623	8	0.991	0.79	0.771	25.15	40.32	70210	71940	112550	115330	1.00	8.0	12.5	
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BEND TEST:

--	No Bend test performed

Note:-

Only Two Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk