Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim

Drawings
Project: Full Rehabilitation of West Saada Water Complex (200 m3/hr) with the Pipeline in Al-Qaim
Sheet Title: Site Plan Details

- Services Building
- Internal Roads
- Gardens
- Generator of 250 kVA
- Concrete Manhole
- Concrete Base Of Water Treatment Unit
- Transformer
Details of Concrete Base for Water Treatment Unit

Project: Full Rehabilitation of West Saada Water Complex (200 m3/hr) with the Pipeline in Al-Qaim
TYPICAL SECTION FOR REINFORCED CONCRETE TO WATER COMPLEX

The bottom of channel must be with slope 1%.

Details of Water Drainage Channels and Concrete Base
Concrete Manhole Details

Concrete Manhole of 1,5x1,5x1,5m dimensions

Ø12mm@300mm Top&Bot.

manhole (60 x 60 cm)

Pipe 12"
columns of steel square tube 4x4 inch and 4mm thick

sub-beam using rectangular steel section of 4 x 2 inch and 3 mm thick each 1m

0.8mm thick corrugated plates

columns of steel square tube 4x4 inch and 4mm thick

Detail B-B

Detail A-A

(4) Bolts of Ø18mm

Base plate of (250x250x10mm)

beams of roof structure from steel square tube 4x4 inch and 4mm thick

columns of steel square tube 4x4 inch and 4mm thick

300
Sedimentation Basin (12x2.4x2.5)m
Intermediate Basin (6x2.4x2.5)m
Sedimentation Basin (12x2.4x2.5)m

Root Air Blower
Horizontal Pump
Chlorine System
Horizontal Pump
Alum System

Anti Hummer
Electric Board

Full Rehabilitation of West Saada Water Complex (200 m3/hr) with the Pipeline in Al-Qaim
Details of Water Treatment Unit on The Concrete Base
Connection of Pipes Details for Water Treatment Unit

Project: Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim

Sheet Title: Connection of Pipes Details for Water Treatment Unit

Electric Board

IN. Water

Sedimentation Basin (12x2.4x2.5)m

Intermediate Basin (6x2.4x2.5)m

Filter

Filter

Pipe 8"

Pipe 8"

Pipe 4"

Pipe 10"

Pipe 3/4"

Pipe 10"

Pipe 8"

Water Hammer

Check valve 8"

Gate valve 10"

Root Air Blower

Horizontal Pump

Mechanical Valve

Filter

Pipe 8"

Pipe 4"

Pipe 10"

Pipe 3/4"

Pipe 10"

Ex. Water

IN. Water

Sedimentation Basin (12x2.4x2.5)m

Chlorine System

Alum System

Horizontal Pump
Electric Board

Water Hammer

Galvanized cable tray

Root Air Blower

Sedimentation Basin (12x2.4x2.5)m

Intermediate Basin (6x2.4x2.5)m

Horizontal Pump

Horizontal Pump

Chlorine System

Alum System

Full Rehabilitation of West Saada Water Complex (200 m3/hr) with the Pipeline in Al-Qaim

Connection of Cable Trays Details for Water Treatment Unit
Section (D-D)

Project: Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim

Sheet Title: Sedimentation Basin Details (1)
Section (C-C)

Project: Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim
Project: Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim

Sheet Title: Sedimentation Basin Details (3)
Side View 1
Top View

Sheet Title: Sedimentation Basin Details (6)

Project: Full Rehabilitation of West Saada Water Complex (200 m3/hr) with the Pipeline in Al-Qaim
Project: Full Rehabilitation of West Saada Water Complex (200 m3/hr) with the Pipeline in Al-Qaim

Sheet Title: Horizontal Pressure Sand Filter Details (1)
Details of Distribution of Filter Media in The Pressure Sand Filter (2)

- Gravel (9.5-13)mm
- Gravel (6.5-9.5)mm
- Gravel (2.5-6.5)mm
- Sand (0.6-0.65)mm

Pipe 8"
- Plate 6mm
- R1.15

- Plate 12mm
- Plate 16mm
- Plate 12mm
- I beam 6"

Section (A-A)
Rear View

Project: Full Rehabilitation of West Saada Water Complex (200 m3/hr) with the Pipeline in Al-Qaim
Sheet Title: Details of Distribution of Filter Media in The Pressure Sand Filter (2)
Side View

Section (B-B)

Project: Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim
Sheet Title: Horizontal Pressure Sand Filter Details (3)
Project: Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim

Sheet Title: Water Hammer Details

- Plate 12mm
- Maintenance slot R18"
- I Beams 6"
- Pipe 8"

Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim
Top View

Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim
Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim

Intake Steel Structure Details (3)
Details of Cross Section in The Ductile and PVC Pipeline Trench

- Concrete with BRC sub-base layers "Class B" 95% of MDD
- River Sand
- Ductile Iron Pipe (10) inch
- PVC Pipe (4, 6, 8, 10) inch
- River Sand

Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim
Construction of Deghaima Water Complex in Al-Qaim

Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim

Details of Services Building (1)
Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim

Details of Services Building (2)
TYPICAL SEC. OF FOUNDATION AND Wall

F.F.L. +750

Well compacted Sub Base 95%

100mm D.P.C.

WALKWAY

6Ø12 mm
Ø10mm@250mm

BLINDING

Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim
Section of Lintel (A-A)

Lintel

STIRRUPS
Ø10mm@200mm

4 Ø12mm

250 250

variable

Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim

Details of Services Building (4) (Lintel)
Septic tank of 3x2x2m dimensions

- Walls of 40 cm width with stone
- Foundation with 21 Mpa Concrete
- Manhole (60 x 60 cm)
- Ø12mm@300mm Top&Bot.
Full Rehabilitation of West Saada Water Complex (200 m3/hr) with the Pipeline in Al-Qaim

Sheet Title: Front Fence Wall Details
Rendering with white cement finishing coat
Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim

Sheet Title: Details of Cross Section in Fence Wall

EXPANSION JOINT EVERY 12.0m MAX.

FENCE TYPICAL PLAN

SECTION 1-1

SECTION 2-2

Concrete for The Columns

Column (30x40) cm

6Ø12 mm

2Ø10 mm @ 250 mm

Cover

400

200

Well compacted Sub Base 95%

BCP

BLINDING

Foundation

Hollow block (20x20x40) cm
Steel Sliding Door Details / Front Fence Wall

Steel plates of 2 mm thick designed by CNC machines

Steel plates designed by CNC machines
Full Rehabilitation of West Saada Water Complex (200 m³/hr) with the Pipeline in Al-Qaim