

# BNM YAPI İNŞ. SAN. TUR. İÇ ve DIŞ TİC. LTD. ŞTİ.



BNM YAPI İNŞ SAN TUR İÇ ve DIŞ TİC LTD ŞTİ Cami Sokak. Özveri Apt. No: 43 D: 11 34740 Suadiye İstanbul / TÜRKİYE Tel : (+90) 216 445 26 20 Fax: (+90) 216 445 26 21 Web: www.bnmyapi.com e-mail: bilgutay@bnmyapi.com Mobile: 00 90 532 662 19 94



## CONTENTS

- 1. Front Page
- **2.** Contents
- 3. Company Profile
- 4. Vision & Mission
- 5. Scope & Main Activities

## **6.** Projects In AZERBAIJAN

- Oğuz-Gabala-Baku Water Supply **6.1**. Manufacturing GRP Fitting
- 6.2. Oğuz-Gabala-Baku Water Supply Field Closure & Pipe Repair

## 7. Projects In TURKEY

- 7.1. Iskenderun Steel Factory Water Supply "Installation Of Cooling Pipes"
- 45MW GÜRMAT Geothermal Power Plant 7.2. 10 "Installation Of GRP Pipes"
- 7.3. 919 MW ENERJİSA Bandırma CCPP "Cooling Water System"
- 7.4. MMK-ATAKAŞ Steel Factor Plant1 "Asit Regenerasyon Plant Piping"
- 7.5. MMK-ATAKAŞ Steel Factor Plant "Reverse Osmos System Installation"
- 7.6. 1050MW AKSA Antalya CCPP Project "Cover Concrete Walls with GRP"
- 7.7. DARBOĞAZ ENERGY Hydro Power Project 27 "Installation of GRP Pipes"









BNM YAPI İNŞ. SAN. TUR. İÇ ve DIŞ TİC. LTD. ŞTİ Cami Sok. Özveri Apt. No:43 D: 11 Suadiye / İSTANBUL Tel: 0090 216 445 26 20 Web: www. bnmyapi.com Fax: 0090 216 445 20 21 e mail: bilgutay@bnmyapi.com

8

13







## 8. Projects In LİBYA

- **8.1.** Abu Ziyyan –Ar Ruhebat Water Supply "Installation Of GRP Pipes"
- **8.2.** Bingazi Pressure Sewer Project "Int. Sealing of GRP Pipe Line and Joints"
- 9. Projects In Turkish Republic Of Northern Cyprus "TRNC"
  - **9.1.** Güzelyurt & Bostancı Sewer & Drinking Water Transmission Line 36 "Installation Of GRP Pipes"









## **COMPANY PROFILE**

BNM YAPI Const. Co. is established on year 2006. With an experience of more than 15 years, we have mainly specialized on pipe installation and mechanical montage such as valve, compansator, pump and other accessories.

We have well experience on installation of Glass Reinforced Plastic (GRP), High Density Polyethilen (HDPE), Steel (St)& Stainles Steel and UPVC pipe installation applications for Power Plant HRSG Piping, Cooling Water System, Endustrial Applications, Irrigation, Raw Water & Waste WAter Transmission, Pressure Sewer & Sewer Network and other applications.

| Regst. Company Name | : BNM YAPI İnşaat Sanayi Turizm<br>İç ve Dış Ticaret Limited Şirketi. |      |
|---------------------|---|------|
| Registration Date   | : 2006  | 5    |
| Country             | : İstanbul / Türkiye  | 20   |
| Registered Address  | : Cami Sok.Özveri Apt.No:43 D:11<br>Suadiye - İstanbul / TURKEY       | 2    |
| Phone No            | : 00 90 216 445 26 20   | 14 - |
| Fax                 | : 00 90 216 445 26 21   |      |
| e-mail              | : <u>bilgutay@bnmyapi.com</u>   | 50   |
| web address         | : www.bnmyapi.com   | + 10 |



BNM YAPI is made a partnership with PUL-TECH FRP and established a GRP pipe production plant in UŞAK / TURKEY named as **EGEM BORU**.

EGEM BORU, manufacturing method of Glass Reinforced Plastic "GRP" pipes is the "Hellical Filament Wound". Fiberglass pipes are manufactured in various diameters DN25mm – DN 5.500mm, pressure classes of PN 1Bar – PN 40Bar, stifness classes of SN2.500N/m<sup>2</sup> – SN10.000N/m<sup>2</sup> and above and lengths usually 6,0 or 12 m and if required different lengths onto a rotating mandrel.







## **BRIEF INFO ABOUT**

## VISION AND QUALITY POLICY

Our vision is to be the leader company for piping application worldwide developing its experience and knowledge.

Policy on quality is to over satisfy the expectations of our Clients and support the personal development of our employees.

Policy on environment is to keep ecological balance, minimize the negative effects and to take necessary precautions in order to provide security of life, property and health of people and our employees that can be affected from our activities during the services we furnish.

## **Registered Quality Certificates :**

BS EN ISO 9001: 2008 Registered Certificate No: 3430/BNM09B

| Documentation Date | : 12. 01. 2009 |
|--------------------|----------------|
| Issue Date         | : 09. 01. 2012 |
| Expiration Date    | : 11. 01. 2013 |

BS EN ISO 14001: 2004 Registered Certificate No: 3430/BNM14C

| Documentation Date | : 12. 01. 2009 |
|--------------------|----------------|
| Issue Date         | :09.01.2012    |
| Expiration Date    | : 11. 01. 2013 |

OHSAS 18001: 2007 Registered Certificate No: 3430/BNM18A

| Documentation Date | : 12. 01. 2009 |
|--------------------|----------------|
| Issue Date         | : 09. 01. 2012 |
| Expiration Date    | : 11. 01. 2013 |





BNM YAPI İNŞ. SAN. TUR. İÇ ve DIŞ TİC. LTD. ŞTİ Cami Sok. Özveri Apt. No:43 D: 11 Suadiye / İSTANBUL Tel: 0090 216 445 26 20 Web: www. bnmyapi.com Fax: 0090 216 445 20 21 e mail: bilgutay@bnmyapi.com





### **SCOPE & ACTIVITIES**

- 1- Pipe installation and mechanical works such as valve, compansator, and other accessories and construction and civil works;
  - **a.** Power Plant Cooling Water System Inst.
  - b. Power Plant HRSG Boiler P91, P22, P11 Piping and Installation of Steam Drums
  - c. Desalination Plant Piping and Installation of Pumps, Tanks, UF & RO System and Dosing System
  - d. Water Transmission & Network lines,
  - e. Sewer & Pressure Sewer Lines,
  - f. Irrigation Network & Syphon Lines,
  - g. Industrial Plants Piping,
  - h. Treatment Plants Piping,
  - **i.** Hydroelectric Plants Water Transmission Lines

#### 2- Construction and Civil Works such as;

- **a.** Water Tanks,
- **b.** Valve Camber,
- c. Seal Pits
- **d.** Pump Station etc.
- 3- Design Works & Technical Consultancy for;
  - a. Glass Reinforced Plastic (GRP) Pipe & Fitting Production,
  - **b.** GRP Pipe Installation Applications,
  - c. Joining Systems Of The Lines and Repair Methods,
  - d. Renovation of Existing Pipe Lines,
  - e. Buried Pipe Design Calculations,
  - f. Thrust Block Design & Calculations,
  - g. Stress & Flexibility Analysis of Pipe Line (CESARS II)
- 4- Manufacturing of GRP Fittings and Other Hand Lay-up Application on Jobsite;
  - a. GRP Elbows,
  - **b.** T Pieces,
  - c. Reducers,
  - d. Flanges,
  - e. Special Type of Fittings
  - f. Repair of GRP Pipes On Jobsite,
  - g. Lamination Applications On Site
- **5-** Construction Works;
  - **a.** Construction works such as water tanks, valve chamber, seal pits etc are included in our scope.
  - **b.** Turnkey Construction of Villas in İstanbul, Dalaman & Gökova



Cami Tel: 0 VALCERT Fax: 0

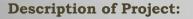




## **PROJECTS IN AZERBAIJAN** 1 / 2

## Oğuz-Gabala-Baku Water Supply Project AZERBAIJAN

| Project Owner   | : AZERSU Joint Stock Company<br>AZERBAIJAN                              |
|-----------------|---|
| Consultant      | : CES Consult Eng. Salzgitter GmbH<br>GERMANY                           |
| Pipe Producer   | : AZKOMPOZIT Pipe Ind.<br>AZERBAIJAN                                    |
| Ріре Туре       | : Glass Reinforced Plastic (GRP)  |
| Pipe Properties | : DN2000mm, PN10Bar -PN20Bar  |
| Scope           | : Design Calculations, Consultancy and<br>Manufacturing of GRP Fittings |
| Date            | : August 2007 - Completed 2008  |



Oğuz – Gabala- Baku Water Supply Project is one of the longest water supply project in the world. Total Length of the project is about **250.000m**. Diameter is DN2.000mm, and the pressure classes are PN10-16-20-25Bars.

BNM YAPI committed to design including technical drawings and production of GRP fittings for the project in the factory who produces GRP pipes in AZERBAIJAN. Design calculations are approved by pipe producer and Client and the consultant of the project German company, CES.

More than 330Pcs of DN 2.000mm diameter GRP fittings were produced for the project. Productions were completed within year 2008.



BNM YAPI İNŞ. SAN. TUR. İÇ ve DIŞ TİC. LTD. ŞTİ Cami Sok. Özveri Apt. No:43 D: 11 Suadiye / İSTANBUL Tel: 0090 216 445 26 20 Web: www. bnmyapi.com Fax: 0090 216 445 20 21 e mail: bilgutay@bnmyapi.com











## PROJECTS IN AZERBAIJAN 2 / 2

## Oğuz-Gabala-Baku Water Supply Project AZERBAIJAN

| Consultant : CES Consult Eng. Salzgitter GmbH<br>GERMANY                                   |   |
|--|---|
| Main Contractor : Hazinedaroğlu Cons Co.<br>TURKEY   |   |
| Pipe Type : Glass Reinforced Plastic (GRP)   |   |
| Pipe Properties : DN2000mm, PN10Bar - PN20 Bar<br>L= 250.000m                              |   |
| Scope : Design Calculations, Consultancy a<br>Repair and Field Closure for GRP<br>Pipeline | n |
| Date : April 2008 - Completed 2008   |   |





## **Description of Project:**

Oğuz – Gabala- Baku Water Supply Project is one of the longest water supply project in the world. Total Length of the project is about 250.000m. Diameter is DN 2.000mm, and the pressure classes are PN10-16-20-25Bars.

BNM YAPI committed to install GRP pipes and design and production of field closure of the installed pipe line. Design calculations are approved by contractor and client and the consultant of the project German company, CES. Productions were completed within 2008.





BNM YAPI İNŞ. SAN. TUR. İÇ ve DIŞ TİC. LTD. ŞTİ Cami Sok. Özveri Apt. No:43 D: 11 Suadiye / İSTANBUL Tel: 0090 216 445 26 20 Web: www. bnmyapi.com Fax: 0090 216 445 20 21 e mail: bilgutay@bnmyapi.com

d





## PROJECTS IN TURKEY 1 / 7

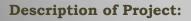
## Iskenderun Steel Factory "ISDEMİR" Cooling Water Supply Project TURKEY

Project Owner: Iskenderun Steel FactoryMain Contractor: İşkaya Cons Co.Pipe Type: Glass Reinforced Plastic (GRP)Pipe Properties: DN2000mm PN10Bar SN 5.000N/m²

Pipe Line Length: 22.500m

Scope : Installation of GRP Pipes and Fittings, Placing pipes into casing by pulling or pushing (Jacking) for road or railway crossings, Concrete Works (Chamber construction, Trust Block,Vadi Crossing etc.,) Field Closure, Pipe Repair and GRP Hand Lay-Up Appl. on site.

Date : October 2007 - July 2008



Water is supplied from Cevdetiye Regulator and convayed to ISDEMİR for Cooling purpose. Total Length of the project is about 52.000m. 22.500m of the pipeline is DN2.000mm GRP pipe and the remaining is Steel. Pressure class of the pipe line is PN10Bars. Pipe line has been followed to DSİ irrigation channel and crossed Iskenderun–Adana main road 5times. Depth of trench is about 7m– 11m.















BNM YAPI installed 22.500m of DN2.000mm GRP pipes and fittings, including construction of thrust blocks and chambers, concrete encasement for vadi crossings, and installation of pipes inside casing.

Project were completed within year 2008. Pipe line is under operation.











## **PROJECTS IN TURKEY** 2/7

45MW Germencik Geothermal Power Plant Project Installation of Cooling Water System

## **TURKEY**

Project Owner : Gürmat Elektrik Üretim A.Ş

Main Contractor : Güriş Cons Co.

Pipe Type : Glass Reinforced Plastic (GRP)

Pipe Properties : DN600-1200mm PN10Bar SN5.000N/m<sup>2</sup>

Scope

: Installation of GRP Pipes, Fittings with Field Layup Joint and Valves, Compansators and other Accessories.

Date

**Description of Project:** 

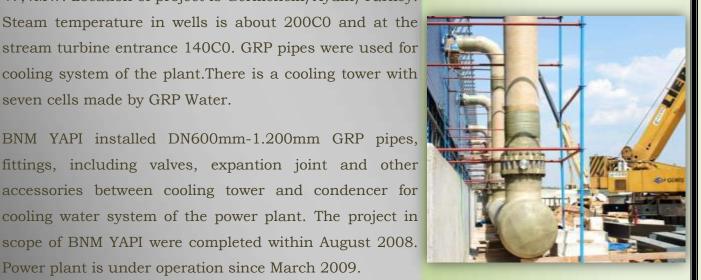
seven cells made by GRP Water.

Power plant is under operation since March 2009.

: November 2007- August 2008









BNM YAPI İNŞ. SAN. TUR. İÇ ve DIŞ TİC. LTD. ŞTİ Cami Sok. Özveri Apt. No:43 D: 11 Suadiye / İSTANBUL Tel: 0090 216 445 26 20 Web: www. bnmyapi.com Fax: 0090 216 445 20 21 e mail: bilgutay@bnmyapi.com



11 / 38



















# PROJECTS IN TURKEY 3 / 7



# 919MW BANDIRMA CCPP Project Installation of Cooling Water System TURKEY

Main Contractor : A-TEC Power Plant Systems

Pipe Type : Glass Reinforced Plastic (GRP)

Main Cooling : DN 2.400mm PN 6Bar

Outfall Line : DN 2.000mm PN 6Bar

Auxilary Cooling: DN 80mm–DN 500mm

Cooldown, Blowdown, Priming System:DN 80mm-350mm

Scope : Erection of Cooling Water System of Bandırma CCPP. Including installation of GRP pipes, Valves, Compansators, Instruments, Steel Supports, Hangers, Backfilling the Trench, etc.

Date

: July 2009 – September 2010

## **Description of Project:**

Bandırma CCPP project is one of the largest capcitiy power plant project in Turkey. Plant is located 26km far from Bandırma on the way of Çanakkale. Water will be taken from Marmara Sea with a depth of about -27m and



BNM YAPI İNŞ. SAN. TUR. İÇ ve DIŞ TİC. LTD. ŞTİCami Sok. Özveri Apt. No:43 D: 11 Suadiye / İSTANBULTel: 0090 216 445 26 20Web: www. bnmyapi.comFax: 0090 216 445 20 21e mail: bilgutay@bnmyapi.com







14 / 38



will be pumped to condencer for cooling purpose of the system. Then the water will be returned to sea.

BNM YAPI installed Cooling Water System of the power plant. GRP pipes including Steel Supports, Valves, Compansators, Instruments and other accessories for Main and Auxilary Cooling water system of the Plant were installed by BNM YAPI.

### Scope:

- Main Cooling Water System
- Auxilary Cooling Water System
- Condencer Priming System
- Raw Water & Demin Water & Desalination System
- Drainage System for the pits, condencer and others



**RETURN LINE** 

(ENTRANCE OF JET CHAMBER)



RETURN LINE (ENTRANCE OF JET CHAMBER)







15 / 38



## " MCW" MAIN COOLING WATER SYSTEM





**SEAL PIT OUTLET** 





# MCW VALVES BEFORE CONDENCER ENTRANCE









## MAIN COOLING WATER SYSTEM















## **"AUX" AUXILARY COOLING WATER SYSTES**



**HEAT EXCHANGER** 



**PRIMING & VACUUM SYSTEM** 









#### **CONDENCER DRAIN LINES**



#### MAIN & AUXILARY COOLING PUMP &

BACKWASFILTER





## **AUXILARY PUMP LINES**







BNM YAPI İNŞ. SAN. TUR. İÇ ve DIŞ TİC. LTD. ŞTİ Cami Sok. Özveri Apt. No:43 D: 11 Suadiye / İSTANBUL Tel: 0090 216 445 26 20 Web: www. bnmyapi.com Fax: 0090 216 445 20 21 e mail: bilgutay@bnmyapi.com





## MAIN COOLING PUMP LINE

















## **PROJECTS IN TURKEY** 4 / 7

**MMK – ATAKAŞ STEEL FACTORY Asit Regeneration Plant Project Installation of GRP Pipes for the Project** 

## TURKEY

Project Owner : MMK-ATAKAŞ METALURGY A.Ş.

Pipe Properties : DN 700mm, PN 6Atm

Date : 24.06.2010 - 01. 07. 2010

## **Description of Project:**

BNM YAPI installed GRP pipes for ARP unit of Plant. Pipes were joined using GRP lamination and flanges.

## Scope:

- Installation of GRP pipes and Duct
- Piping Seperator 1 Absorber 0
- Piping Seperator 2 Venturi 2 0
- Piping Absorber Ventulator 0















# MMK – ATAKAŞ STEEL FACTORY Asit Regeneration Plant Project













## **PROJECTS IN TURKEY** 5 / 7

**MMK – ATAKAŞ STEEL FACTORY** Reverse Osmoz System Installation of Pipes, Valves, **Compansators and Other Aceessories for the Project** TURKEY

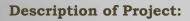
Project Owner : MMK-ATAKAŞ METALURGY A.Ş.

Design & Supply: Water Group

Pipe Type : HDPE & UPVC Pipe

Pipe Properties : DN110mm - DN 800mm, PN 6-16Atm

Date : 29.06.2010 - 20.10.2011



BNM YAPI has been installed HDPE & UPVC pipes, valves, compansators, steel supports, clamps and other accessories for the reverse ozmoz system.

System Capacity 900m<sup>3</sup>/hr

Scope:

Installation of System

- Absorbtion of water with pumps 0
- Entrance and Exit to UF Filters 0
- Entrance & Exit to RO Filter 0
- Dosing System Installation 0







BNM YAPI İNŞ. SAN. TUR. İÇ ve DIŞ TİC. LTD. ŞTİ Cami Sok. Özveri Apt. No:43 D: 11 Suadiye / İSTANBUL Tel: 0090 216 445 26 20 Web: www. bnmyapi.com Fax: 0090 216 445 20 21 e mail: bilgutay@bnmyapi.com









MMK – ATAKAŞ STEEL FACTORY Reverse Osmoz System Pump Station













BNM YAPI İNŞ. SAN. TUR. İÇ ve DIŞ TİC. LTD. ŞTİ Cami Sok. Özveri Apt. No:43 D: 11 Suadiye / İSTANBUL Tel: 0090 216 445 26 20 Web: www. bnmyapi.com Fax: 0090 216 445 20 21 e mail: bilgutay@bnmyapi.com



















## PROJECTS IN TURKEY 6 / 7

1050MW AKSA Antalya CCPP Project GRP Coating Of The Walls For Notrolization & Dekatyonization Tanks TURKEY

Project Owner: AKSA ENERJİ ÜRETİM A.Ş. / TURKEYApplication: Covering of the concrete walls with<br/>Glass Reinforced Plastic materialCover Area: 800m²Scope: Coating the concrete walls with Glass<br/>Reinforced Plastic "GRP" material<br/>against chemical material corrosion.

Date

: October 2008 – October 2008





## **Description of Project:**

Internal face of the concrete tanks in demineralization water system (dekatyonize water tank, notrolization pool etc,) were covered with vinylester GRP against sulfur corrosion.









ROYALCERT OHSAS 18001



27 / 38



## **PROJECTS IN TURKEY** 7 / 7

DARBOĞAZ ENERJİ HYDRO POWER PLANT PROJECT **ALABALIK HES I & II GRP** Pipe installation for Hydro Power Plant Project **TURKEY** 

Project Owner : DARBOĞAZ ENERJİ

Main Contractor : YG İnş. Taah. Tur.Mad.San.Tic.Ltd.Şti.

: August. 2010 – June 2011 Date

## **Description of Project:**

BNM YAPI installed GRP pipes and valves for water supply lines of the project.

ALABALIK HES - I -Capacity: 11,5MW Regulator A – Collecting Pit DN 1.800mm, PN10Atm Main Line L=752m

| Regulator B – Collecting Pit |             |      |       |
|------------------------------|-------------|------|-------|
| DN 1.100mm, PN10Atm          | Syphon Line | L=   | 212m  |
| DN 1.400mm, PN10Atm          | Main Line   | L=1. | .626m |

Collecting Pit - Loading Pit DN 1.600mm, PN10Atm DN 2.000mm, PN10Atm

Syphon Line L= 806m Main Line L=1.411m

ALABALIK HES - II - Capacity: 5MW Regulator A – Loading Pit DN 1.800mm, PN10Atm Main Line L= 4.290m

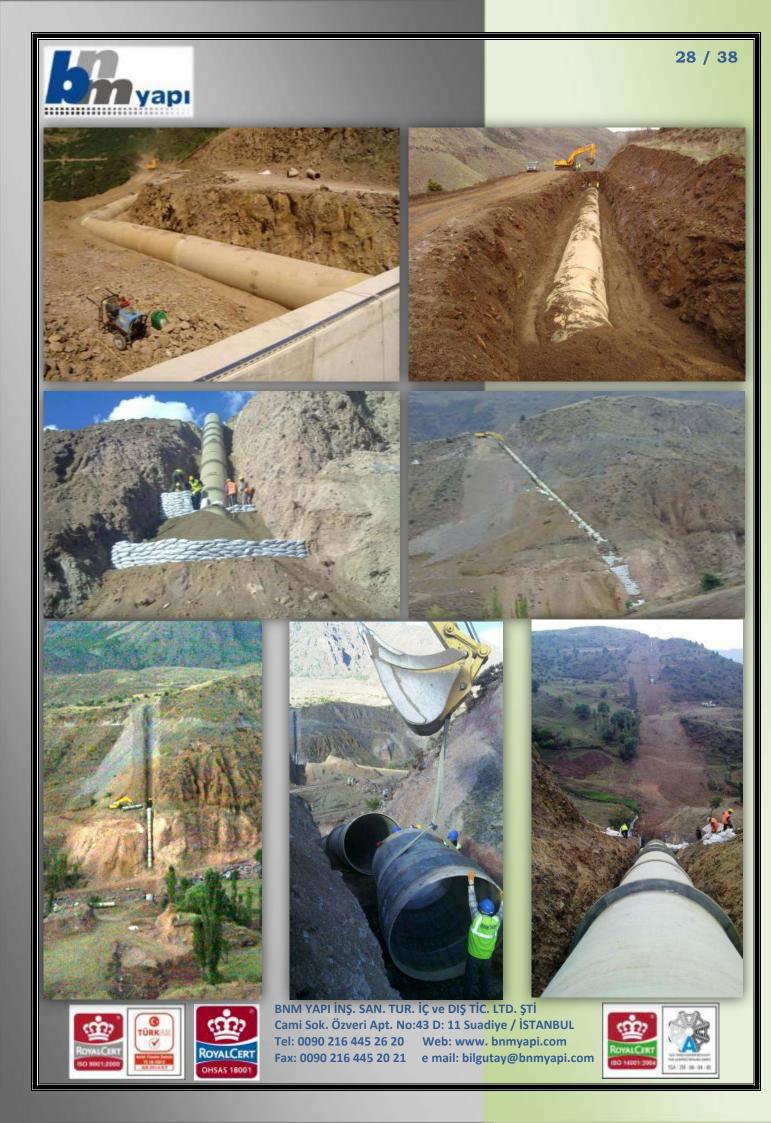












## PROJECTS IN LIBYA 1 / 2

Great Man-Made River Project Abu Ziyyan – Ar Ruhebat Water Supply Project LIBYA

Project Owner : The Management & Implementation Authority Of Great Man Made River Project "GMRA"

Main Contractor : ÖZTAŞ & NGCC JV / TURKEY&LIBYA

Pipe Type : Glass Reinforced Plastic (GRP) & HDPE

Pipe Properties : DN600-1600mm, PN10-16-25Bar, SN5.000N/m<sup>2</sup>

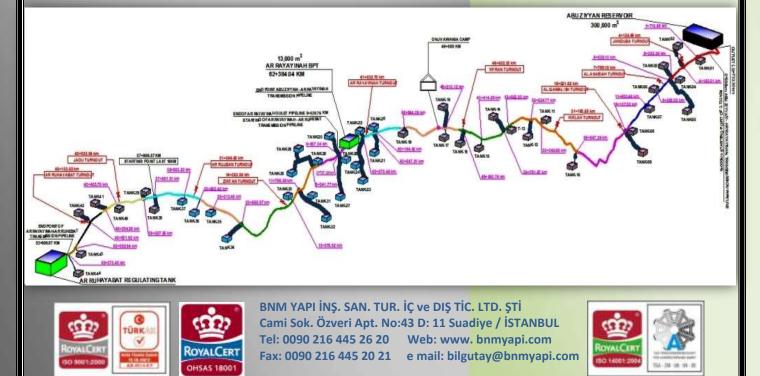
Main Line : 120.000m GRP Pipe

Branch Line : 67.000m HDPE Pipe

Scope : Site Organization, Preparation of Pipe and Fitting Order Lists, Handling and Installation of GRP & HDPE Pipes and Fittings for Main and Branch Lines.

Date : May 2008 – July 2011

Abu Ziyyan-Yifran section (56.000m)is under operation.











30 / 38



#### **Description of Project:**

Abu Ziyyan – Ar Ruhebat water supply project is one of the important section of Great Man Made River Project which is the largest pipe line project in Libya and the world.

Water is taken from **Abu-Ziyyan Town Reservoir**, **300.000m**<sup>3</sup> capacity and convayed to Regulating Tank with a capacity of **27.000m**<sup>3</sup> in **Ar-Ruhebat Town**. There is a **Break Pressure Tank** with a capacity of **13.000m**<sup>3</sup> in **Ar Rayayinnah** town which is in the middle of the Project There are **44 Irrigation Tanks** on the pipe line. Therefore totally 67.000m of branch line will be installed for these tank branches.

BNM YAPI installed 120.000m of Main Lines of the project. Water is convayed to Yifran town which is around 56.000m far from water source. Pipe line installation was completed and the lines were tested.

However while the final connection to Break Pressure Tank and Regulating Tanks was compliting a riot and civil commotion was occured in Libya. One of the first location for civil commotion was Zintan which is on the route of our pipeline. Accordingly Project was stopped and all people was returned back to their countries.





BNM YAPI İNŞ. SAN. TUR. İÇ ve DIŞ TİC. LTD. ŞTİ Cami Sok. Özveri Apt. No:43 D: 11 Suadiye / İSTANBUL Tel: 0090 216 445 26 20 Web: www. bnmyapi.com Fax: 0090 216 445 20 21 e mail: bilgutay@bnmyapi.com



#### **UNLOADING AT JOBSITE**





**TRENCH EXCAVATION** 





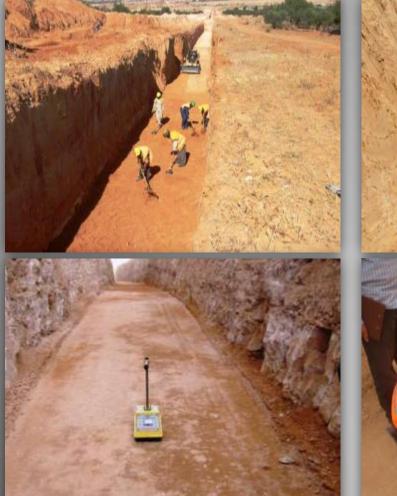


## PREPERATION OF BACKFILL MATERIAL





**BEDDING & COMPACTION TESTS** 











## **BACKFILLING & PIPE INSTALLATION**





















## PIPE INSTALLATION & VALVE CONNECTION

















#### 34 / 38



## PROJECTS IN LIBYA 2 / 2

## Benghazi Supply & Installation of Sewage Project LIBYA

| Project Owner | : Benghazi Municipality / | ' LIBYA |
|---------------|---------------------------|---------|
|---------------|---------------------------|---------|

Main Contractor : MRA Const Co. / TURKEY

Pipe Type : Concrete Covered Glass Reinforced Plastic (GRP)

Pipe Properties : DN1600mm, PN16Bar (Microtunnel Pipes)

Length Of Line : 500m

Scope : Internal lamination for the installed Concrete Covered GRP pipes.

: August 2008 – September 2008

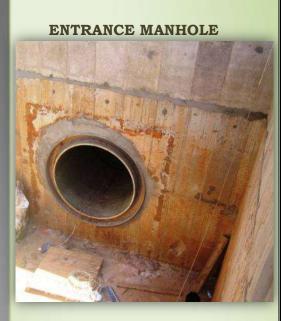
## **Description of Project:**

Date

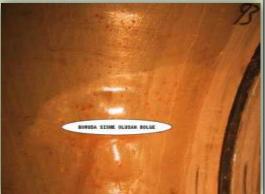
Benghazi Supply and installation sewage line project is one of the important project for Benghazi Municipality.

Benghazi infrastructure have been completely renewing. Waste water is convayed to treatment plant in Guarjha.

GRP pipes with a concrete cover were used for micro tunneling. During jacking of pipes, GRP pipes were damaged with high jacking forces and all joints were leaking. BNM YAPI repaired, installed 500m of pressure waste water line.



**DAMAGED PIPE & JOINT** 



**REPAIRED PIPE & JOINED** 









Damaged lines were instpected and damaged sections were determined. About 500m of the line was laminated with GRP material with a thickness of 5mm. In order to keep flexibility at the joints special internal sealing were applied at each joints.

Pipe line was **tested to**  $P_T$ **16Bar** and was started to operate at the end of 2008. The pipe line is succesfully under operation.









FLEX JOINT GASKET APPLICATION













36 / 38



#### PROJECTS IN T.R.N.C 1 / 1

# GÜZELYURT & BOSTANCI SEWER AND DRINKING WATER TRANSMITION LINE

TURKISH REPUBLIC OF NORTHEREN CYPRUS T.R.N.C

Project Owner : EUROPEAN UNION COMMISSION

Consultant : GRONTMIJ A/S

Main Contractor : HASELSAN İNŞ ve TİC LTD ŞTİ.

Date

: NOV. 2010 – DEC. 2011

#### Scope

BNM YAPI installed HDPE pipes, manholes, house connections and valves for water supply network and sewer lines of the project. Installation of Corugated and HDPE Pipes for Waste Water & Drinking Water Network

in TRNC

## **Description Of Project :**

Project is owned by **European Commission** and followed, controlled and engineered by **Grontmij A/S** as a European Aid for TRNC. Scope of the Project is Construction of Sewerage & water Distribution Networks in Morphou/Güzelyurt & Bostancı region.

Project is based on **European Union** and **FIDIC** "Conditions of Contract For Construction"















## GÜZELYURT & BOSTANCI SEWER AND DRINKING WATER TRANSMITION LINE

#### WASTE WATER TRANSMITION NETWORK

| + | Φ 75mm Corugated HDPE Pipe       | 1.470m  |
|---|----------------------------------|---------|
| 4 | $\Phi$ 150mm Corugated HDPE Pipe | 225m    |
| 4 | Φ 225mm Corugated HDPE Pipe      | 38.735m |
| 4 | Φ 315mm Corugated HDPE Pipe      | 9.645m  |
| 4 | Φ 560mm Corugated HDPE Pipe      | 1.900m  |

## **DRINKING WATER TRANSMITION NETWORK**

| 4 | Φ | 32mm PN10 Bar HDPE Pipe  | 8.500m  |
|---|---|--------------------------|---------|
| 4 | Φ | 64mm PN10 Bar HDPE Pipe  | 20.700m |
| 4 | Φ | 90mm PN10 Bar HDPE Pipe  | 70m     |
| 4 | Φ | 110mm PN10 Bar HDPE Pipe | 12.300m |
| 4 | Φ | 160mm PN10 Bar HDPE Pipe | 2.550m  |
| 4 | Φ | 225mm PN10 Bar HDPE Pipe | 2.530m  |
| 4 | Φ | 355mm PN10 Bar HDPE Pipe | 2.900m  |













**INSTALLATION OF SEWERAGE & WATER NETWORKS** 

















