



Naw Joye village Community water supply network project, Pato district, Daikundi province
Bill of Quantity for Gravity Water supply network with Surface Water Reservoir

| S/NO | Discriptions | Unit | Quantity | Cost/Unit (Afs.) | Total Cost (Afs.) | Remarks |
|--|---|------|----------|------------------|-------------------|---------|
| 1 | Mobilization and Demobilization | | | | | |
| 1.0 | Mobilization - Compensation in full for the cost for transport of equipment, materials and personnel on the project site | LS | 1.00 | | | |
| 2.0 | Demobilization - Compensation in full for the cost of removing and cleaning of the construction site, equipment, facilities and personnel from the site | LS | 1.00 | | | |
| Sub Total for Mobillization and Demobillization Works (1.2) | | | | | | |
| BoQ for Spring Protection | | | | | | |
| 1 | Excavation for Spring protection laying in ground type 3-4 with all required activities, All task for this item to be under full approval and satisfaction of Engineer. | m3 | 12 | | | |
| 2 | Back filling of spring trench by excavated material.with all required activities, All task for this item to be under full approval and satisfaction of Engineer. | m3 | 4 | | | |
| 3 | Gravel filling in floor of structures .with all required activities, All task for this item to be under full approval and satisfaction of Engineer. | m3 | 0.2 | | | |
| 4 | Stone masonry with cement- sand mortar M: 1:4. with all required activities, All task for this item to be under full approval and satisfaction of Engineer. | m3 | 7.7 | | | |
| 5 | Plain Cement Concrete (PCC), M150 kg/cm2 (1:2:4) . with all required activities, All task for this item to be under full approval and satisfaction of Engineer. | m3 | 0.1 | | | |
| 6 | Reinforced Cement Concrete (RCC), M 200kg/cm2 including steel bars and shuttering according to the drawings. 1:1.5:3 with all required activities, All task for this item to be under full approval and satisfaction of Engineer. Note: the RCC slab main hole must has handle. | m3 | 0.6 | | | |
| 7 | Pointing with cement motar 1:3 outside walls of spring protection with all required activities, All task for this item to be under full approval and satisfaction of Engineer. | m2 | 4.3 | | | |

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| 8 | Plaster with cement motar 1:3 inside walls of spring protection with all required activities, All task for this item to be under full approval and satisfaction of Engineer. (Note: 2kg high quality powder per 1 bage cement) | m2 | 4 | | | |
| 9 | Galvanized Iron (GI) pipe, inside diameter (1 1/2 ") | M | 13 | | | Outlet Pipe,drain Pipe & overflow Pipe |
| 10 | Galvanized Iron (GI) pipe, inside diameter (1 ") | M | 1 | | | |
| 11 | Supply and installation of good quality Gate valve Dia =1 1/2" for drain of spring protection, best quality | No | 2 | | | |
| 12 | Supply and installation of Galvanized Iron Socket, diameter 1 1/2" | No | 4 | | | |
| 13 | Supply and installation of Galvanized Iron Socket, diameter 1 " | No | 2 | | | |
| 14 | Supply and installation of Galvanized Iron Nipple, diameter 1 1/2" | No | 4 | | | |
| 15 | Supply and installation of Galvanized Iron Nipple, diameter 1 " | No | 2 | | | |
| 16 | Supply and installation of Galvanized Iron Union, diameter 1 1/2" | No | 2 | | | |
| 17 | Supply and installation of Galvanized Iron Union, diameter 1 " | No | 1 | | | |
| 18 | Supply and installation of Galvanized Iron Elbow, diameter 1" | No | 1 | | | |
| 19 | Supply and installaiton of Mail threaded Adopter (MTA), Size (50x1 1/2") | No | 1 | | | |
| 20 | Supply and installation of Galvanized Tee, Size 1(1 1/2"x1"x1 1/2")mm | No | 1 | | | |
| Sub-Total Cost for one Spring Protection Chamber (Afs) | | | | | | |
| BoQ for 10 m3 Ground Reservoir Tank | | | | | | |
| 1 | Excavation of earth for water reservoir tank with all required activities according to technical drawing, All task for this item to be under full approval and satisfaction of Engineer (3-4) | m3 | 22.95 | | | |

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| 2 | Back filling from excavated earth around of the water reservoir tank with all required activities according to technical drawing, All task for this item to be under full approval and satisfaction of Engineer | m3 | 9.20 | | | |
| 3 | Gravel floor, with Compacted 90% thickness 100 mm with all required activities according to technical drawing, All task for this item to be under full approval and satisfaction of Engineer | m3 | 0.6 | | | |
| 4 | PCC M150 with (100) mm thickness, under the water reservoir tank, with all required activities according to technical drawing, All task for this item to be under full approval and satisfaction of Engineer | m3 | 1.48 | | | |
| 5 | RCC M250 for Foundation, walls and slab of water reservoir tank with all required activities, All task for this item to be under full approval and satisfaction of Engineer | m3 | 9.65 | | | |
| 6 | Plaster with cement motar 1:3 and with water proof powder for inside walls of water reservoir tank with all required activities, All task for this item to be under full approval and satisfaction of Engineer. (Note: 2kg high quality powder per 1 bage cement) | m2 | 25 | | | |
| 7 | Plaster with cement motar 1:3 for outside walls of water reservoir tank with all required activities, All task for this item to be under full approval and satisfaction of Engineer. | m2 | 33.7 | | | |
| 8 | Cement whitewash, maxed with water proof powder, inside of RCC walls over plastring of water reservoir tank, All task for this item to be under full approval and satisfaction of Engineer. | m2 | 22 | | | |
| 9 | Pointing, with high quality green oil color outside of RCC walls of water reservoir tank, All task for this item to be under full approval and satisfaction of Engineer. | m2 | 33.7 | | | |
| 10 | Prepare and instalition high quality metallic gate (with stainless and pointing) over the water reservoir tank main hole according to technical drawing with all requeriment activities, All task for this item to be under full approval and satisfaction of Engineer. | m2 | 0.64 | | | |
| 11 | Prepare and instalition wire mesh on the head of outlet pipe of water reservoir tank according to technical drawing with all requeriment activities, All task for this item to be under full approval and satisfaction of Engineer. | m2 | 0.5 | | | |
| 12 | Supply and installation of 1 1/4 inch Galvanised Iron Ladder for reservoir with all required activites according to drawings. Note: the ladder must be removeable | No | 1 | | | |

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| 13 | Supply and installaiton of Galvanized Iron (GI) pipe, inside diameter 2" | m | 6 | | | Overflow & Drain pipes |
| 14 | Supply and installaiton of Galvanized Iron (GI) pipe, inside diameter 1 1/2" | m | 6 | | | Outlet pipe |
| 15 | Supply and installation of Galvanized Iron Elbow, diameter 2" | No | 2 | | | |
| 16 | Supply and installation of Galvanized Iron Elbow, diameter 1 1/2" | No | 2 | | | |
| 17 | Supply and installation of Galvanized Iron Nipple, diameter 2" | No | 2 | | | |
| 18 | Supply and installation of Galvanized Iron Nipple, diameter 1 1/2" | No | 2 | | | |
| 19 | Supply and installation of Gate valve (good quality) Nominal Diameter =2" best quality | No | 1 | | | |
| 20 | Supply and installation of Gate valve (good quality) Nominal Diameter =1 1/2" best quality | No | 1 | | | |
| 21 | Supply and installation of Galvanized Iron Socket, diameter 2" | No | 2 | | | |
| 22 | Supply and installation of Galvanized Iron Socket, diameter 1 1/2" | No | 2 | | | |
| 23 | Supply and installation of Galvanized Iron Union, diameter 2" | No | 1 | | | |
| 24 | Supply and installation of Galvanized Iron Union, diameter 1 1/2" | No | 1 | | | |
| 25 | Supply and installaiton of Male threaded Adopter (MTA), Size (63x2") | No | 1 | | | |
| 26 | Supply and installaiton of Male threaded Adopter (MTA), Size (50x1 1/2") | No | 1 | | | |
| 27 | Supply and installation of Polyethylene Reducer, Size (63x50)mm | No | 1 | | | |
| 28 | Supply and installation of Galvanized Tee, Size (50x50x50)mm | No | 1 | | | |
| Sub-Total Cost for 10 m3 Ground Reservoir tank (Afs.) | | | | | | |
| BoQ for One Stand Tap, (This network project has elevent stand tap) | | | | | | |
| 1 | Excavation for Stand Tap in ground type 3-4 with all required activities, All task for this item to be under full approval and satisfaction of Engineer. | m3 | 1.2 | | | |

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| 2 | Back filling of around stand tap by excavated material.with all required activities, All task for this item to be under full approval and satisfaction of Engineer. | m3 | 0.15 | | | |
| 3 | Gravel filling in floor of structures .with all required activities, All task for this item to be under full approval and satisfaction of Engineer. | m3 | 0.12 | | | |
| 4 | Plain Cement Concrete (PCC), M150 kg/cm2 (1:2:4) . with all required activities, All task for this item to be under full approval and satisfaction of Engineer. Note : instal flat slab under the Tap during the build of stand tap. | m3 | 0.17 | | | |
| 5 | Plaster with cement motar 1:3 for stand tap with all required activities, All task for this item to be under full approval and satisfaction of Engineer. (Note: 2kg high quality powder per 1 bage cement) | m2 | 1.9 | | | |
| 6 | Galvanized Iron (GI) pipe, inside diameter (3/4 ") | M | 2 | | | |
| 7 | Supply and installation of good quality Gate valve Dia =3/4" for stand tap, best quality | No | 1 | | | |
| 8 | Supply and installation of Galvanized Iron Socket, diameter 3/4" | No | 2 | | | |
| 9 | Supply and installation of Galvanized Iron Nipple, diameter 3/4" | No | 1 | | | |
| 10 | Supply and installation of Galvanized Iron Union, diameter 3/4" | No | 2 | | | |
| 11 | Supply and installation of Galvanized Iron Elbow, diameter 3/4" | No | 2 | | | |
| 12 | Supply and installation of Polyethylene Reducer, Size (40x25)mm | No | 1 | | | |
| 13 | Supply and installaiton of Mail threaded Adopter (MTA), Size (25x 3/4") | No | 1 | | | |
| Sub-Total Cost for one Stand Tap (Afs) | | | | | | |
| Sub-Total Cost for eleven (11) Stand Tap (Afs) | | | No | 11 | | |
| BoQ for One one Break Pressure Reducer Valve and Valve Box, | | | | | | |
| 1 | Excavation for valve box laying in ground type 3-4 | m3 | 4.00 | | | |
| 2 | Stone masonry with cement- sand mortar M: 1:4. | m3 | 1.33 | | | |

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| 3 | Plain Cement Concrete (PCC), M150 kg/cm2 (1:2:4) | m3 | 0.10 | | | |
| 4 | Reinforced Cement Concrete (RCC), M 200kg/cm2 including steel bars and shuttering according to the drawings. 1:1.5:3 | m3 | 0.15 | | | |
| 5 | Back filling of pipe trench by excavated material. | No | 0.50 | | | |
| 6 | Pointing work with cement-sand mortar outside of protection for spring M: 1:3 . | m2 | 3.50 | | | |
| 7 | Supply and installation of Break Pressure Reducing Vale (good quality) Nominal Diameter =1 1/2" best quality | No | 1 | | | |
| Sub-Total Cost for One Break Pressure Reducer Valve and Valve Box (Afs) | | | | | | |
| 1 | Excavation for valve box laying in ground type 3-4 | m3 | 4.00 | | | |
| 2 | Stone masonry with cement- sand mortar M: 1:4. | m3 | 1.33 | | | |
| 3 | Plain Cement Concrete (PCC), M150 kg/cm2 (1:2:4) | m3 | 0.10 | | | |
| 4 | Reinforced Cement Concrete (RCC), M 200kg/cm2 including steel bars and shuttering according to the drawings. 1:1.5:3 | m3 | 0.15 | | | |
| 5 | Back filling of pipe trench by excavated material. | No | 0.50 | | | |
| 6 | Pointing work with cement-sand mortar outside of protection for spring M: 1:3 . | m2 | 3.50 | | | |
| Sub-Total Cost for One Gate vale box (Afs) | | | | | | |
| Sub-Total Cost for (2) Two Gate Vale Boxes (Afs), | | | No | 2 | | |
| BoQ for Transmission & Distribution line | | | | | | |
| 1 | Excavation for Spring protection laying in ground type 3-4 | m ³ | 444 | | | |
| 2 | Back filling of pipe trench by excavated material. | m ³ | 355 | | | |
| 3 | Back filling of pipe trench by Seived Soil . | m ³ | 89 | | | |
| 4 | Supplying, installation, laying and fitting in place of High Density Polyethylene pipe (PE 100 PN 10 SDR 17), Outside Diameter: 40 mm, wall thickness 2.4 mm ,weight 0.29 kg/m, Best quality. | M | 240 | | | |

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| 5 | Supplying, installation, laying and fitting in place of High Density Polyethylene pipe (PE 100 PN 10 SDR 17), Outside Diameter: 50 mm, wall thickness 3 mm ,weight 0.45 kg/m, Best quality. | M | 993 | | | |
| 6 | Supply and installation of good quality Gate valve Dia =1 1/2" for drain of spring protection, best quality | No | 2 | | | |
| 7 | Supply and installation of Polyethylene Straight Coupler, diameter (50x50) mm | No | 7 | | | |
| 8 | Supply and installation of Polyethylene Reducer, Size (50x40)mm | No | 1 | | | |
| 9 | Supply and installation of Polyethylene Tee, Size (50x50x50)mm | No | 1 | | | |
| 10 | Supply and installation of Polyethylene Tee, Size (50x40x50)mm | No | 4 | | | |
| 11 | Supply and installation of Polyethylene Tee, Size (40x40x40)mm | No | 1 | | | |
| 12 | Supply and installaiton of Male threaded Adopter (MTA), Size (50x1 1/2") | No | 5 | | | |
| 13 | Supply and installation of Galvanized Iron Nipple, diameter 50mm | No | 4 | | | |
| 14 | Supply and installaiton of Male threaded Adopter (MTA), Size (63x2") | No | 1 | | | |
| 15 | Supply and installation of End cup for the pipe 40mm | No | 6 | | | |
| 16 | Supply and installation of End cup for the pipe 50mm | No | 1 | | | |
| 17 | Tools for pipe scheme care taker (valve man): threading machine (dye), threading machine tripod With vice and blades, pipe cutter, pipe wrench, chain wrench, screw wrench (shifting spanner), metal file, pliers,Screw driver, hacksaw, hacksaw blades, lever arm, and meter. | L/S | 1 | | | |
| Sub-Total Cost for Transmission & Distribution line | | | | | | |
| BoQ for Sign Board of project | | | | | | |
| 1 | Sign Board for project . | No | 1 | | | |
| Grand Total Cost (Afs.) | | | | | | |

Some of prices and volumes are estimated approximately and the actual price is paid according to the work done and the excavated volumes

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