



Pipeline Specification Summary

KA - SouthWest Shallow Gas

General Description:

The SouthWest Shallow Gas Pipeline is a 6" Pipeline which transports Low Pressure Sweet Gas 14.5 Kilometers from 06-02-61-20W5 to the SemCAMS Kaybob Gas Plant located at 1-12-62-20W5. Valve Stations and Tie-in points are installed along the length at several locations. Interconnection with other pipeline systems and processing plants has been utilized to re-route gas from one system / plant to another as required.

| Pipeline Static Data: | | | |
|-----------------------|------------------------|------------------------|----------------|
| Medium: | Low Pressure Sweet Gas | | |
| License Approval : | 45122 | License H2S : | 0 % |
| Diameter : | 6" | Length : | 15.5 Kms. |
| M.O.P. : | 9930 Kpa. | Normal Operating Pres. | 3000-4300 Kpa. |
| ANSI Rating : | 600 RTJ | | |

| Tie-In / ESD Locations: | | |
|-------------------------|-------------|---------------------------------|
| STN 01 | 6-2-61-20 | Valve Station – Producer T/I |
| STN 02 | 10-10-61-20 | Block Valve |
| STN 03 | 11-22-61-20 | Block Valve, Hot Tap Riser |
| STN 04 | 12-34-61-20 | Block Valve, Producer T/I |
| STN 05 | 16-2-62-20 | Block Valve |
| STN 05A | 12-12-62-20 | Block Valves, producer T/I |
| STN 06 | 1-12-62-20 | Block Valve, ESDV, Producer T/I |

Tie In Specifications

Section A: WELLSITE Requirements

| Gas Quality – Piping Configuration, Equipment & Reporting | |
|---|--|
| Dehydration | Not Required |
| H2S Composition (Max.) | 0 % |
| Separation Equipment | 2 Phase – 3 Phase |
| Condensate | Combined with Gas Stream or Tanked - Trucked |
| Water | Tanked - Trucked |
| Metering | EFM (Electronic Flow Measurement) |
| Fuel Gas – (Site Supplied) | Metered or Estimate |
| Fuel Gas – (External Source) | No data required. |
| SCADA | Required for all direct T/I's |
| Gas & Liquids Sampling | Required as per Manual requirements |
| Daily Reporting Method | SemCAMS SCADA, Customer SCADA, Fax, e-mail |

Section B: DOWNSTREAM FACILITY Requirements**Gas Quality**

| | | | |
|----------------------------------|--|-------|-----------------|
| H2S Composition (Max.) | 0% | | |
| Temperature (Max) | 50 ⁰ Celcius | | |
| Water Dewpoint (combined stream) | Not Required | | |
| Condensate | Re-injection allowed | | |
| BS&W | Not Required | | |
| Water | Tanked | | |
| Methanol | YES - Inhibited MeOH | | |
| Corrosion Inhibitor Injection | YES | Type: | Champion RU 196 |
| Sulphur Dispersants - Solvents | NONE | | |
| Operational Liquids | NONE (Cleaning Solvents/Hydro/PL Initial Batch...) | | |
| Operational Gasses | NONE (Purge Gasses N2 / CO2 / Air / ...) | | |

Piping - Configuration & Equipment

| | | | |
|-------------------------------------|-----------------------------|------------|--------------------------|
| Dehydration Type | Not Required | | |
| Dewpoint Auto Shut-in / Recycle | NONE | Set Point: | -10 ⁰ Celcius |
| Dewpoint Analyzer | NONE | | |
| BS&W Analyzer | NONE | | |
| BS&W Auto Shut-in / Diversion | NONE | | |
| Metering – Gas Production | EFM | | |
| Metering – Condensate Production | EFM | | |
| Metering - Water | NO Tanked | | |
| Metering – Fuel Gas (site supplied) | EFM Metered or Estimate | | |
| Metering – Fuel Gas (external) | Not Required | | |
| Compressor Recycle | Required – Pressure Control | | |
| Flare & Recycle Connections | Upstream of Sales Meter | | |
| | | | |

SemCAMS SCADA:

| | | | |
|---------------------------|--|--|--|
| Flow Measurement (Sales) | Required | | |
| Remote ESD | Required (Supplied at tie-in location) | | |
| Compressor Run Status | Required | | |
| Dewpoint Analyzer Status | NONE | | |

Section C: SemCAMS Pipeline T/I Point Requirements**Piping Configuration and Equipment**

| | | | |
|--------------------------------------|---------------|-------|---------|
| Pipe Specification (above ground) | SemCAMS SP-60 | | |
| Pigging Facilities | Required | | |
| ESD Valve | Required | | |
| Check Valve | Required | | |
| Drains & Vents | Required | | |
| Cathodic Protection – Insulating Kit | Required | Type: | Pikotek |
| Future Connection | Required | | |
| Corrosion Monitoring Coupon | Required | | |
| | | | |

SemCAMS SCADA:

| | | | |
|--------------------|-----------------------------------|---------------|--|
| Pressure | Required | | |
| ESD Valve Position | Required (Open – Moving – Closed) | | |
| Remote ESD | Required (SemCAMS Control) | | |
| ESD – Local PSHH | Required | Set Pressure: | |
| ESD – Local PSLI | Required | Set Pressure: | |
| TEG Status | Required | | |