



A Rockwell Automation Company

Amoco Canada Petroleum Company Ltd. Tony Creek SCADA System

The Client:

Amoco Canada Petroleum Company Ltd. is a major Canadian Oil and Gas producer.

The Amoco Kaybob Plant is a sour gas plant situated in Northeastern Alberta and produces approximately 300mmcf. The plant gathers raw gas from natural gas

wells and processes the gas for sales. To improve operation efficiency and ensure safe production from these gas wells, the field was automated in the 1970's. This type of automation is called "SCADA".

The Requirement:

A new SCADA system was required to minimize obsolete problems, meet expansion needs, and meet new regulatory requirements. The existing system had become difficult to manage and support. New technology could resolve these issues easily, plus provide new benefits including; accurate flow measurement to meet regulatory requirements. The new technology would also provide a high level of plant/field information integration. The plant is equipped with a DCS system on which operators used a DCS operator interface as a single window on the whole plant. An important requirement of the new SCADA system was to ensure a single window

concept for both plant and field. Another requirement for the SCADA system was to ensure status on individual wells. Previously status on wells was only detected through loss of a net flow. In addition, there was also little control capability with the old SCADA system and configuration changes required changing FORTRAN code.

In summary, Amoco required a system which monitored flow more effectively and accurately, and which reduced the operators time.

The Design Solution:

Hinz assisted the client and selected the Honeywell SCAN 3000 SCADA system with Bristol Babcock 3330 RTUs at each site. SCAN 3000 provided a single window to plant and field in a user-friendly graphical environment. The operation and configuration of the SCAN 3000 system was done on a Windows-based workstation. The master operating system is UNIX based.

Each well site has a local RTU performing gas flow and compressibility calculations and monitoring a number of status points. AGA3 flow calculations and Wichert-Aziz modified Redlich-Kwong compressibility calculations produced accurate gas flow measurement for both sweet gas and sour gas.

Field operators on one of the Scan workstations

viewed real-time data on flow rates, alarms, and shutdowns. Operators can perform local functions such as well shut-ins and beam pump starts and stops.

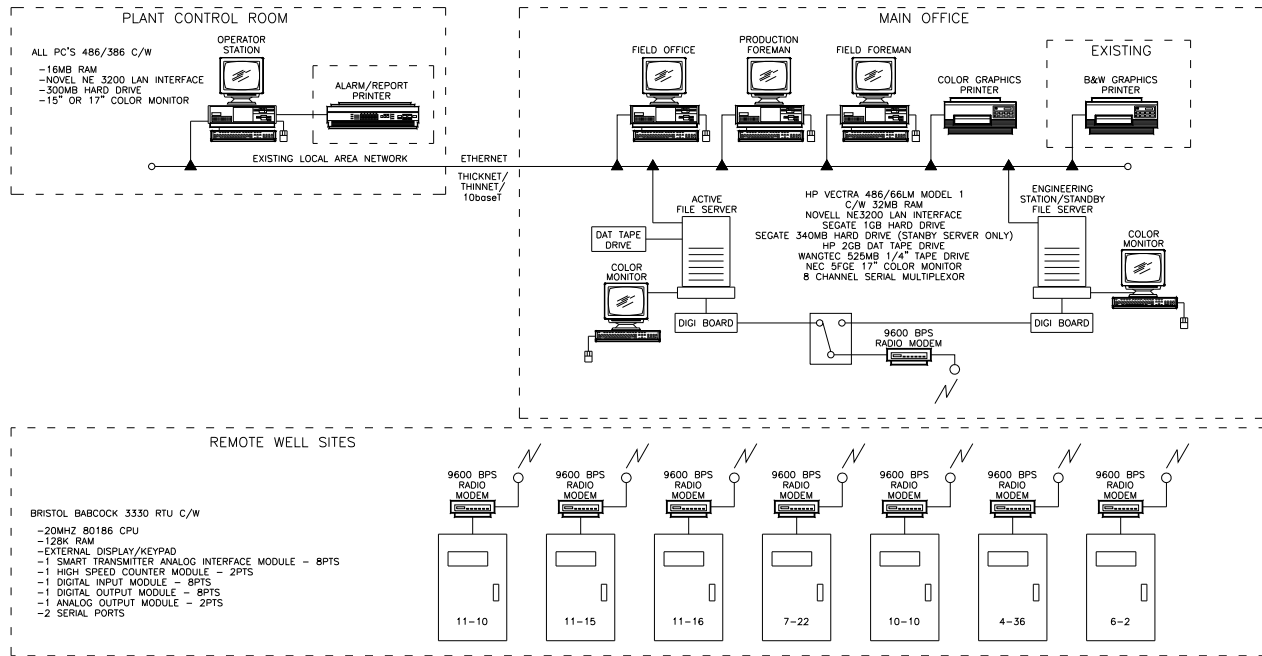
This Scan 3000 installation is the first in North America and allows great flexibility, control, and availability of information. The initial seven (7) well sites are installed and operating. Plans are underway to expand the system to monitor more wells.

Hinz assisted Amoco with the design, installation, and commissioning of the digital radio system. The MOS 4100 was used for the master and repeater. The MOS 4310 was used for the well sites.



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System Specifications:

- Bristol Babcock 3310 and 3330 RTUs with Local Operator Keypads
- Honeywell Smart Transmitters
- Bristol Babcock 3-in-1 Transmitters
- High-speed Turbine Inputs with Daniel Pre-amplifiers
- Thermo Electric Generators with Battery Backup and Power Alarming
- Local or Site-Controlled ESD and Beam Pump Operation
- Hewlett-Packard LM 486/66 Server
- SCO UNIX
- Honeywell Scan 3000 SCADA System
- Dat Tape Drive
- MDS 9600 Baud Digital Radios
- Ethernet TCP/IP Connection
- MS-Windows-based Operator Workstations

For further information or to contact a Hinz office near you, please check our website at:

www.hinz.com