

Basic Outline to establish Crude Helium Storage Contract with BLM

1. Customer notifies BLM of their intent to establish a new storage contract:
(2-week estimated time frame to complete the executable process)
 - a. Customer provides BLM with Company addressing and signature information
 - b. BLM prepares two executable original copies for signature
 - c. Copies sent certified mail to the customer for signature
 - d. Customer returns both copies to BLM for final signature
 - e. BLM returns one original to customer
 - f. BLM retains one copy as the master file copy
 - g. Annual Fixed Cost \$12,000 per year

Basic Outline to establish Pipeline Connection Point Hot Tap to the BLM Pipeline System

2. Pipeline Connection Point – Hot Tap
 - a. Customer Determines the State and Location of Pipeline Tap (Longitude & Latitude)
 - b. BLM contracts Hot Tap Operation (8 - 10 weeks)
 - c. Tapping Fitting Service & Products i.e. 4" X 2"/ 4" X 3"/ 4" X 4" or 8" X 4" 900# RTJ
 - d. Building heated/cooled/electrical - Customer is responsible for the purchase and installation of a building to house the measurement and sampling system equipment
 - e. Entire tie-in location must have a valve box with lid, lockable and surrounded by a chain link fence enclosure
 - f. Customer is responsible for the purchase and installation of the meter run
 - g. Customer purchases and installs a junior/senior ⁽¹⁾ orifice meter
 - h. Customer is responsible for the purchase of a Daniels Gas Chromatograph
 - i. Customer is responsible for the purchase of ROC 809 and software package
 - j. Customer purchases and installs a gas sampling system
 - k. Valves and piping ⁽²⁾ system between tie-in and custody transfer must be approved by BLM-HFO Engineering team.
 - l. Annual Fixed Cost for Pipeline Connection Point \$20,000 per year

Reference:

(1) If customer purchases and installs a junior orifice meter in lieu of a senior meter, at least annually the meter run will be taken off-line and de-pressured for BLM personnel to inspect the orifice plate surfaces and MIC the orifice size opening.

(2) Government pipeline system can operate at a maximum of 1,800 psi; therefore all piping from tie-in to custody transfer point must be able to operate at that pressure.

Phase 1 - Estimated Cost Breakdown

	Contract Holder	BLM
Hot Tap - Contractor	\$ 22,000	
Annual Fixed Cost for Connection Point	\$ 20,000	
BLM purchases and provides full port valve		\$ 5,000
BLM bills the storage contract holder for these costs	\$ 42,000	

Phase 2 - Estimated Cost Breakdown

Contract Holder BLM

Piping and meter run specifications must be in accordance with AGA 3, ANSI B31.3 and all other regulatory requirements.

Storage Contract Holder purchases the following:

Meter Run	\$ 14,000
Orifice Meter Cost	\$ 10,000
Daniels Chromatograph (GC) with 12 component streams	\$ 70,000
ROC 809 Package installation, configuration and software	\$ 22,000
Installation cost \$20-30,000, depends on line size tapped	\$ 30,000
Sampling System with 60 Single Cavity Sample Cylinders	\$ 40,000
Building cost \$12-15,000	\$ 15,000
Valve Box, lockable, Chain link fencing around tie-in location	\$ 2,400
Satellite Pole plus Electrical, Heat Trace & Conduit	<u>\$ 1,200</u>
	\$ 226,600

Example of 4" X 4" 900# RTJ Tap & Fitting Service

ATTACHED TO THE TOP RISER IS A 4-INCH 90 DEGREE ELBOW, 4X3 REDUCER, AND 3-INCH CHECK VALVE. CHECK VALVE IS SET IN THE HORIZONTAL POSITION. ELBOW AND REDUCER IS RATED AT SCHEDULE 80 AND THE CHECK VALVE IS RATED AT 900 SERIES

