

## INDIRECT HEATER

Client: \_\_\_\_\_ Date: \_\_\_\_\_

Project: \_\_\_\_\_ Contact: \_\_\_\_\_

Location: \_\_\_\_\_ PSL Reference: \_\_\_\_\_

### 1. SITE CONDITIONS

1. \_\_\_\_\_

Ambient Temperature: °F \_\_\_\_\_

Design Wind Speed - mph \_\_\_\_\_

Elevation - feet ASL \_\_\_\_\_

Earthquake Zone (NBC) \_\_\_\_\_

### 2. PROCESS DATA

2. \_\_\_\_\_

#### 2.1 Gas Composition

2.1 \_\_\_\_\_

<u>Component</u>	<u>Mole %</u>	
N <sub>2</sub>	_____	_____
CO <sub>2</sub>	_____	_____
H <sub>2</sub> S	_____	_____
C <sub>1</sub>	_____	_____
C <sub>2</sub>	_____	_____
C <sub>3</sub>	_____	_____
iC <sub>4</sub>	_____	_____
nC <sub>4</sub>	_____	_____
iC <sub>5</sub>	_____	_____
nC <sub>5</sub>	_____	_____
C <sub>6</sub>	_____	_____
C <sub>7+</sub>	_____	_____
TOTAL	_____	_____
Gas Molecular Weight:	_____	_____

## 2.2 Free Liquids Composition

<u>Component</u>	<u>Mole %</u>
N <sub>2</sub>	_____
CO <sub>2</sub>	_____
H <sub>2</sub> S	_____
C <sub>1</sub>	_____
C <sub>2</sub>	_____
C <sub>3</sub>	_____
iC <sub>4</sub>	_____
nC <sub>4</sub>	_____
iC <sub>5</sub>	_____
nC <sub>5</sub>	_____
C <sub>6</sub>	_____
C <sub>7+</sub>	_____
TOTAL	_____
Oil Gravity: °API	_____
Oil Viscosity: CP	_____

## 2.2 \_\_\_\_\_

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## 2.3 Flowrates

Gas:

- Minimum x MMSCFD \_\_\_\_\_
- Maximum x MMSCFD \_\_\_\_\_
- Normal x MMSCFD \_\_\_\_\_

Free Liquids:

- Minimum x BBL/D \_\_\_\_\_
- Maximum x BBL/D \_\_\_\_\_
- Normal x BBL/D \_\_\_\_\_

Free Water:

- Minimum x BBL/D \_\_\_\_\_
- Maximum x BBL/D \_\_\_\_\_
- Normal x BBL/D \_\_\_\_\_

## 2.3 \_\_\_\_\_

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## 2.4 Operating Conditions

2.4 \_\_\_\_\_

Wellhead Shut-In \_\_\_\_\_

Pressure: PSIG \_\_\_\_\_

Inlet Pressure: PSIG \_\_\_\_\_

Inlet Temperature: °F \_\_\_\_\_

Required Outlet \_\_\_\_\_

Temperature: °F \_\_\_\_\_

Required Outlet \_\_\_\_\_

Pressure: PSIG \_\_\_\_\_

Is Choke Required: \_\_\_\_\_

Yes/No \_\_\_\_\_

Manual \_\_\_\_\_

Automatic \_\_\_\_\_

Pressure Drop Allowance \_\_\_\_\_

Across Coil Bundle: PSI \_\_\_\_\_

Heating Medium Fluid: \_\_\_\_\_

## 3. MECHANICAL DATA

3. \_\_\_\_\_

### 3.1 Design Conditions

3.1 \_\_\_\_\_

Coil Design Pressure: \_\_\_\_\_

Preheat Coil: PSIG \_\_\_\_\_

Reheat Coil: PSIG \_\_\_\_\_

Coil Design \_\_\_\_\_

Temperature: °F \_\_\_\_\_

Coil Corrosion \_\_\_\_\_

Allowance: inches \_\_\_\_\_

Coil Radiography: % \_\_\_\_\_

### 3.2 Fuel Gas

3.2 \_\_\_\_\_

Source - Flowline \_\_\_\_\_  
- Other \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

### 3.3 Instrumentation

3.3 \_\_\_\_\_

Pneumatic Controls: \_\_\_\_\_  
Yes/No \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Instrument Gas: \_\_\_\_\_  
Instrument Air: \_\_\_\_\_  
Supply Pressure: PSIG \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Electric Controls: \_\_\_\_\_  
Yes/No \_\_\_\_\_  
Voltage: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Utilities: \_\_\_\_\_  
Electric Power \_\_\_\_\_  
Volts \_\_\_\_\_  
Phases \_\_\_\_\_  
Cycles \_\_\_\_\_  
Maximum Load: KW \_\_\_\_\_

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### 3.4 Metering

3.4 \_\_\_\_\_

Is metering required? \_\_\_\_\_  
Gas Yes/No \_\_\_\_\_  
Fuel Gas Yes/No \_\_\_\_\_  
Remote Transmission \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### 3.5 Enclosures

3.5 \_\_\_\_\_

Is building required? \_\_\_\_\_

\_\_\_\_\_