

**PRO/II Petroleum Fractions Prototype
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Purpose

- "Property Calculator"

Demonstrate ability to maintain separate component property values for different streams and allow petroleum unit to modify component properties

Implemented

■ Compound Identification

```
// Definition of Compound Type Enumeration
typedef enum eCapeCompoundType{
    CAPE_COMPOUND_REAL = 0,
    CAPE_COMPOUND_ION = 1,
    CAPE_COMPOUND_ASSAY = 2,
    CAPE_COMPOUND_PETROLEUMFRACTION=3
} CapeCompoundType;
```

■ GetComponentConstant

- new property "compoundType"

Implemented

- ICapeThermoPetroFractions
 - GetPetroProp
(several bulk properties, curves, and 'sulphur content')
 - SetPetroProp
(bulk sulphur, 'sulphur content' of petroleum fractions)

Demo

■ Demo 1

- Report Material Object Properties
- Report Petro Properties (bulk, curve, fractions)

■ Demo 2

- Modify bulk sulphur content
 - causes modification of sulphur "component property"
- Modify sulphur content of individual components
 - would be used by a petro unit performing its own external characterization and updating the component properties directly.

Not Implemented

- ICapeThermoPetroFractions
 - DefineFromPetroFractions (limited)

- ICapePetroCapeNotification

Observations

- GetPetroProp - attempting to do three things
 - Bulk value
 - Characterization curve
 - Characterized values for petroleum fractions

- "Characterization" - generating new component values from bulk/curve properties
 - when to perform the characterization (automatically or on-demand)?
 - what characterization options to perform (cut curves into fractions and/or update RIP values)?

Thank You



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