

# NRG CASE STUDIES



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## TEST SEPARATORS TEXAS, USA

## NRGMAX TREATER TEXAS, USA



### 48" x 10' 275psi Test Separators for Permian Basin

### 10' x 30' 75psi NRGMAX Treater for Permian Basin

We are currently building a large volume of these separators for a client in the Permian Basin area in Texas, near Midland.

We have found that we are competitive on price while delivering a high quality product in a shorter time frame than our competition.

**LOCATION:** Texas, USA

**SIZE:** 48" x 10"

**PRESSURE:** 275psig

**SERVICE:** Sour

**MFG DATE:** 2018/2019

This treater was custom built for a client in Midland Texas. It was built and shipped down in late 2018.

Since it is installed in Texas, no building was required and was painted the standard tan colour to match the surrounding landscape.

**LOCATION:** Permian Basin

**SIZE:** 10' x 30'

**PRESSURE:** 75psig

**SERVICE:** Sour

**MFG DATE:** 2018

## INLET SCRUBBER TEXAS, USA

## FUEL GAS SKID TEXAS, USA



**36" x 10' 275psi Inlet Scrubber for Permian Basin**

**24" x 5' 275psi Fuel Gas Skid for Permian Basin**

We are currently building a handful of these vertical inlet scrubbers for the Permian Basin. Pictured above is showing how the vessel is removed for shipping due to the height.

**LOCATION:** Texas, USA  
**SIZE:** 36" x 10"  
**PRESSURE:** 275psig  
**SERVICE:** Sour  
**MFG DATE:** 2018/2019

We are currently building a handful of these vertical Fuel Gas Skid packages for the Permian Basin.

Future units now include a level control bridge with high and low level shut downs.

**LOCATION:** Texas, USA  
**SIZE:** 24" x 5'  
**PRESSURE:** 75psig  
**SERVICE:** Sour  
**MFG DATE:** 2018/2019

## TRAILER MOUNTED TEST SEPARATOR

## LARGE HORIZONTAL SEPARATOR



### 78" x 24' 275psi Portable Separator

### 84" x 24' 1440psi Sour Horizontal Separator

This unit was built for a testing company operating in Montana. The customer supplied the trailer for us to manufacture the vessel and package the unit.

It has rear fold down stairs for building access, as well as an underbelly hutch with small heaters to keep the unit warm in the winter.

**LOCATION:** Montana, USA

**SIZE:** 78" x 24'

**PRESSURE:** 275psig

**SERVICE:** Sour

**MFG DATE:** 2013

This unit was built for Harvest Energy in 2014. It is the largest separator we have built to date, but our capacity can greatly exceed this unit. Once complete it was 125,000 LBS and loaded via jack and rolling. Each 8' shell was 4" thick and weighed 13,000 LBS. One of our market niches is our 2' thick steel reinforced concrete, which allows us to build this large.

**LOCATION:** AB, Canada

**SIZE:** 84" x 24'

**PRESSURE:** 1440psig

**SERVICE:** Sour

**MFG DATE:** 2014

## NRGMAX BUCKET TREATER

## LARGE HORIZONTAL SEPARATOR



### 10' x 40' 75psi NRGMAX Bucket Treater

### 84" x 30' 720psi Horizontal Separator

Two of these treaters were built for Crescent Point Energy. Our 10' x 40's come standard with two 2.5 MM BTU firetubes, for a total of 5.0 MM BTU, based on 10,000 BTU sq/ft Flux Rating.

These units had the building extend 50% of the way down the building, in order to house 1 of 2 sample tub systems, which was custom designs for this unit.

**LOCATION:** Canada

**SIZE:** 120" x 40'

**PRESSURE:** 75psig

**SERVICE:** Sour

**MFG DATE:** 2017

This unit was built in 2017 and has a total weight of approximately 110,000 LBS (55 Tons).

This represents a typical layout of a production separator of this size. This unit was dressed with a wide variety of high end accessories such as; bridals, guided wave level transmitters, multivariable transmitters, turbines, blow down sytem, pressure transmitters, etc.

**LOCATION:** Canada

**SIZE:** 84" x 30'

**PRESSURE:** 720psig

**SERVICE:** Sweet

**MFG DATE:** 2017

## TEST SEPARATORS KUWAIT, AFRICA

## 2.5 MM BTU LINE HEATER RECONDITION



### (4) 72" x 10' 211psi Test Separators

### 2.5 MM BTU Line Heater - Full Recondition

This is one of four 72" x 10' horizontal test separators we built for Kuwait Oil Company.

These units had high end Coriolis meters in order to measure their 11 API oil. Also pictured above is the desand system they requested us to design. All 4 units were identical and also had a 96" x 24' 211psi sister package.

**LOCATION:** Kuwait, Africa

**SIZE:** 72" x 10'

**PRESSURE:** 211psig

**SERVICE:** Sour

**MFG DATE:** 2015

This is one of many line heaters we have reconditioned. The pictures show the 'as purchased' condition all the way to the final completion of the unit; looking brand new.

We wait for customer requirements prior to building new coils. In this unit, they needed 3" 900# Coils, sour service.

**LOCATION:** Canada

**SIZE:** 2.5 MM BTU

**PRESSURE:** 2220psig

**SERVICE:** Sour

**MFG DATE:** 2018

## INLET HEADER PACKAGE

## SEPARATOR / LINE HEATER COMBO UNIT



### 6 WELL HEADER PACKAGE

### 30" X 10' 1030PSI W/ 2.0 MM BTU Line Heater

Westcan Fabricating Ltd manufactured this 6 well inlet header package back in 2014 for Coda Petroleum.

**LOCATION:** Canada  
**SIZE:** 6 Well - 3" Headers  
**PRESSURE:** 720psig  
**SERVICE:** Sour  
**MFG DATE:** 2014

This unit was built in 2016 for Centrica Energy. The customer spared no expense to dress this unit with almost every option in the book. It had Multi-Variable Transmitters, digital displays, turbine meters and totalizers, pressure transmitters, and pumps.

This integral unit was one of a kind and we received great feedback from the customer.

**LOCATION:** Canada  
**SIZE:** 30" x 10' w/ 2MM  
**PRESSURE:** 2030psig  
**SERVICE:** Sour  
**MFG DATE:** 2016

## LARGE HORIZONTAL SEPARATOR

## FULL SEPARATOR ALTERATION & RECONDITION



### 96" x 30' 720PSI Horizontal Separator

### 96" x 12' 250psi Vessel Modification

This unit was built in 2013 and was one of our first large horizontal separators.

The vessel material was 2" thick and has a weight of 85,000 LBS.

The full package weight is estimated to be around 135,000 LBS (67 Tons).

**LOCATION:** Canada  
**SIZE:** 96" x 30'  
**PRESSURE:** 720 PSI  
**SERVICE:** Sour  
**MFG DATE:** 2013

This vessel started its life out as a manual 2 phase, operator controlled, test separator. After we purchased it, we did the vessel calculations and modified it into a full 3 phase automated production separator.

We find this is a great way to reuse older units, while also providing our customers with a cost effective alternative to building new.

**LOCATION:** Canada  
**SIZE:** 96" x 12'  
**PRESSURE:** 250psig  
**SERVICE:** Soft Sour  
**MFG DATE:** 2016



## SAIT NRGMAX TREATER

## NRGMAX BUCKET TREATER



**48" X 20" 2000psi Treater**

**96" x 30' 75psi NRGMAX Bucket Treater**

In partnership with Oilpro, NRG Process Solutions designed and supplied S.A.I.T. Polytechnic with one of our NRGMAX "Packed" Treaters. The students at the Calgary Campus use our treater to learn how to operate similar units in the field. We also installed the prototype NRGMAX Thermal Syphon Firetube Heat Exchanger, which has worked very successfully.

**LOCATION:** Calgary, AB  
**SIZE:** 48" x 10"  
**PRESSURE:** 75psig  
**SERVICE:** Sour  
**MFG DATE:** 2012

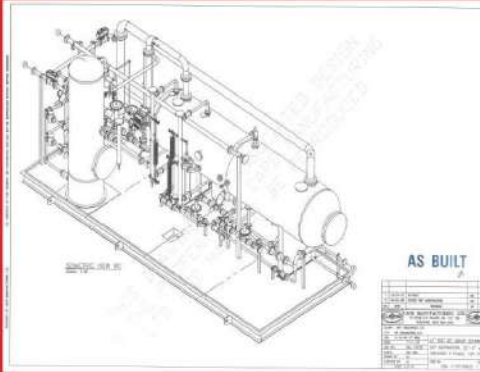
This Treater was custom built for Suncor. It has a large 24" scrubber inlet, top of the line electrical package, and a steel frame shell prior to building erection.

To learn more about NRGMAX Treaters, visit our website. [www.nrgps.com](http://www.nrgps.com)

**LOCATION:** Canada  
**SIZE:** 96" x 30'  
**PRESSURE:** 75psig  
**SERVICE:** Sour  
**MFG DATE:** 2013

## GROUP TEST SEPARATOR PACKAGE

## NRGMAX FWKO



### 60" x 20' 720psi w 42 x 10 720psi Package

### 96" x 30' 75psi NRGMAX FWKO

This unit was built in 2017 with a 60" ID x 20' s/s 720 PSIG Group Separator and an integral 42" OD x 10'0" s/s 720 Test Separator.

Designed and dressed 3 Phase for sweet service. Our client really likes this design and we have built two identical units so far, with more expected in the future.

**LOCATION:** Canada  
**SIZE:** 60" x 20' with 42" x 10'  
**PRESSURE:** 720psig  
**SERVICE:** Sweet  
**MFG DATE:** 2017

This unit was built for Tourmaline in 2013 and actually had a sister unit almost identical to it, however it was an NRGMAX Treater. This unit used a side mount L2E as a level controller for the water, mounted to an external cage.

**LOCATION:** AB, Canada  
**SIZE:** 96" x 30'  
**PRESSURE:** 75psig  
**SERVICE:** Sour  
**MFG DATE:** 2013

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