5/16/2018 Well Production

Example report for Well Production

powered by Jupyter.org on Openshift

```
In [1]:
        %matplotlib inline
        import pandas as pd
        df = pd.read_csv("./data/winkler_vol.csv")
        print(df.shape)
        (109, 4)
In [2]:
        print(df.columns)
        Index(['Months', 'Oil Rates', 'Gas Rates', 'Water Rates'], dtype='object')
In [3]:
        print(df.dtypes)
        Months
                          int64
        Oil Rates
                        float64
        Gas Rates
                        float64
        Water Rates
                        float64
        dtype: object
In [4]:
        print (df.loc[[0,50,100]])
             Months
                      Oil Rates
                                 Gas Rates
                                             Water Rates
                        34135.0
        0
                   1
                                  132199.0
                                                 58030.0
        50
                  51
                         5578.0
                                   20877.0
                                                  9483.0
        100
                          615.0
                 101
                                    1531.0
                                                  1046.0
        oil= df['Oil Rates']
In [5]:
        gas = df['Gas Rates']
        water = df['Water Rates']
In [6]: print(oil.describe())
                    106.000000
        count
                   7304.650943
        mean
                   6759.720675
        std
                    264.000000
        min
                   2331.000000
        25%
                   5231.000000
        50%
        75%
                  10131.000000
                  34135.000000
        max
        Name: Oil Rates, dtype: float64
```

5/16/2018 Well Production

```
In [7]: print(gas.describe())
                       106.000000
          count
                     27607.603774
          mean
          std
                     26351.033463
                       163.000000
          min
          25%
                      8220.000000
          50%
                     19523.500000
          75%
                     38626.500000
                    132199.000000
          max
          Name: Gas Rates, dtype: float64
 In [8]:
          print(water.describe())
                      106.000000
          count
          mean
                    12417.915094
          std
                    11491.503289
                      450.000000
          min
          25%
                     3962.750000
          50%
                     8892.500000
                    17222.750000
          75%
                    58030.000000
          max
          Name: Water Rates, dtype: float64
 In [9]:
          import matplotlib.pyplot as plt
         df = df.cumsum()
In [10]:
In [11]: plt.figure(); df.plot();
          <Figure size 432x288 with 0 Axes>
           3000000
                       Months
                       Oil Rates
           2500000
                       Gas Rates
                       Water Rates
           2000000
           1500000
           1000000
            500000
                           20
                                  40
                                          60
                                                  80
                                                         100
 In [ ]:
 In [ ]:
 In [ ]:
```

5/16/2018 Well Production