

OPGEE_2.0_v100.xlsm

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fx

=Active Field!J50

fx

=Active Field!J50

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Inputs

1.1

Key inputs (to be entered on "Inputs" sheet)

1.1.1

Production methods

1.1.1

Downhole pump

1.1.2

Water reinjection

1.1.3

Natural Gas Reinjection

1.1.4

Water flooding

1.1.5

Gas lifting

1.1.6

Gas flooding

1.1.7

Steam flooding

1.1.8

Oil sands mine (integrated with upgrader)

1.1.9

Oil sands mine (non-integrated with upgrader)

1.1.2

Field properties

1.1.2.1

Depth

1.1.2.2

Production volume

1.1.2.3

Number of producing wells

1.1.2.4

Number of water injecting wells

1.1.2.5

Diameter

1.1.2.6

Productivity index

1.1.2.7

Average reservoir pressure

1.1.3

Fluids properties

1.1.3.1

API gravity

1.1.3.2

Gas composition

1.1.4

Production practices

1.1.4.1

Gas-oil ratio (GOR)

1.1.4.2

Water oil ratio (WOR)

1.1.4.3

Water injection ratio

1.1.4.4

Steam oil ratio (SOR)

1.1.4.5

Fraction of remaining gas to reinjection

1.1.4.6

Fraction of water to reinjection/flooding

1.1.4.7

Flood gas volumetric injection rate

1.2

Secondary inputs (to be entered on this sheet)

1.2.1

Produced water properties

1.2.1.1

Concentration of dissolved solids (TDS)

1.2.2

Well description

1.2.2.1

Well head pressure

1.2.2.2

Injectivity index

1.2.2.3

Friction factor

1.2.3

Downhole pump characteristics

1.2.3.1

Pump efficiency

1.2.3.2

Prime mover type

1 = NG engine, 2 = Electric motor, 3 = Diesel engine, 4 = NG turbine

User	Default	Units	User reference	Default reference
0	0	1		
0	0	1		
0	0	1		
0	0	0		
0	0	0		
0	0	0		
0	0	0		
0	0	0		
1	1	0		
7240	7240	ft		
1500	1500	bbl/d		
8	8	[-]		
5.0	5.0	[-]		
2.8	2.8	in		
3.0	3.0	bbl/psi-d		
1557	1557	psi		
8.0	8.0	30.0 deg. API		
2.0	2.0	mol%		
6.0	6.0	mol%		
84.0	84.0	mol%		
4.0	4.0	mol%		
2.0	2.0	mol%		
1.0	1.0	mol%		
1.0	1.0	mol%		
OK				
227	227	scf/bbl		
4.3	4.3	bbl water/bbl oil		
5.3	5.3	bbl water/bbl oil		
3.0	3.0	bbl steam/bbl oil		
0	0	0%		
100	100	%		
NA	NA	Mscf/d		
5000	5000	mg/L		
1000	1000	psi		
3.0	3.0	bbl/psi-d		
0.02	0.02	[-]		
65	65	%		
1	1	NA		

Vlasopoulos et al. (2006)

Manning, F., and Thompson, R. (1991)

Kuo, J.C. et al. (2001)

Introduction

How to use

To be done

Model coverage

Inputs

Results

Active Field

Energy Consumption

GHG Emissions

Exploration

Drilling & Development

Production & Extraction

Surface Processing

Ready

100%