

# Additional Information

Additional FSP Modeling 2/17/21

# Fault Slip Potential

## MODEL INPUTS

### GEOMECHANICS

### PROB. GEOMECH

### HYDROLOGY

### PROB. HYDRO

### INTEGRATED

Fault Selector:

- All Faults
- Fault #1
- Fault #2
- Fault #3
- Fault #4
- Fault #5
- Fault #6

Calculate

Fault Data

Number of faults (max 500)

6

Friction Coefficient mu

0.58

All

Random Faults

Enter Faults

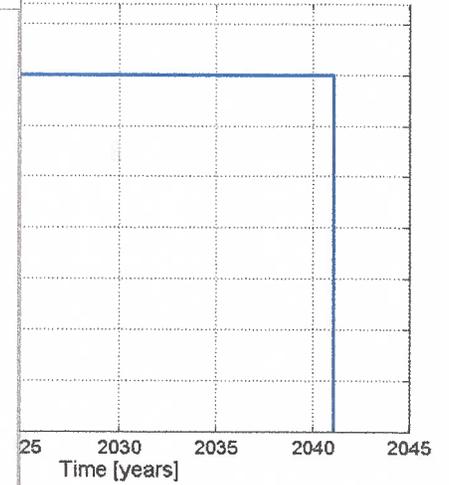
	X [East km]	Y [North km]	Strike [Deg]	Dip [Deg]	Length [km]
1	2.7000	-0.9400	315	45	3
2	0.7500	1	315	45	2.5000
3	-0.7000	2.4500	315	45	1.6700
4	1.8500	-1.2800	320	45	3
5	-0.1700	0.9200	315	45	3
6	-1.8200	2.5800	315	45	1.7000

Y [North km]

Load File

Help

OK



# Fault Slip Potential

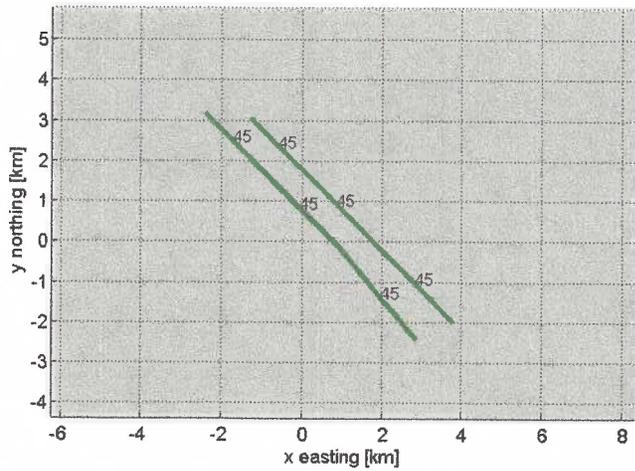
- MODEL INPUTS
- GEOMECHANICS**
- PROB. GEOMECH
- HYDROLOGY
- PROB. HYDRO
- INTEGRATED

Fault Selector:

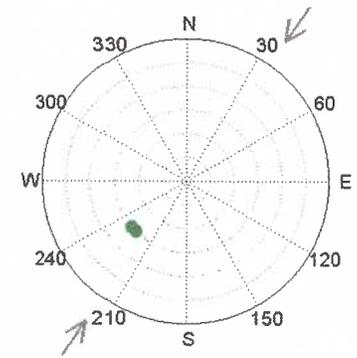
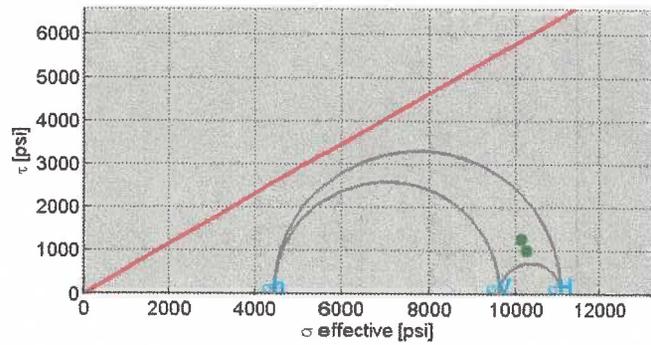
- All Faults
- Fault #1
- Fault #2
- Fault #3
- Fault #4
- Fault #5
- Fault #6

Calculate

b) Fault Dip  Help



Stress Regime: Strike-Slip Faulting



Stereonet Show:

# Fault Slip Potential

MODEL INPUTS    **GEOMECHANICS**    PROB. GEOMECH    HYDROLOGY    PROB. HYDRO    INTEGRATED

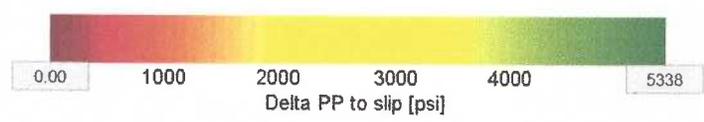
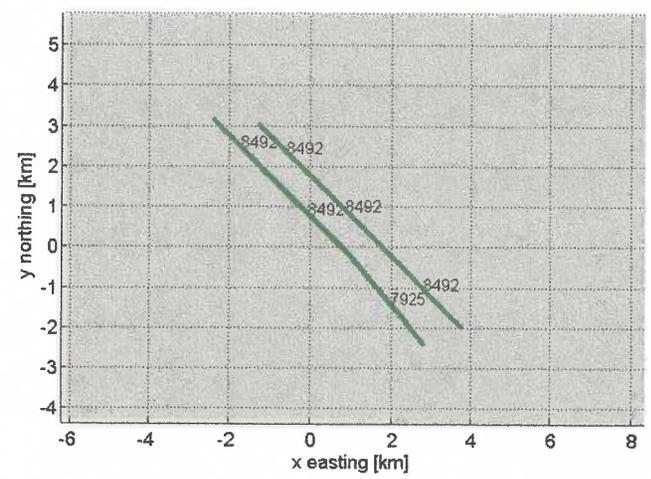
Fault Selector:

- All Faults
- Fault #1
- Fault #2
- Fault #3
- Fault #4
- Fault #5
- Fault #6

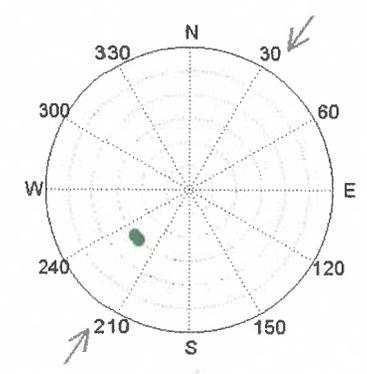
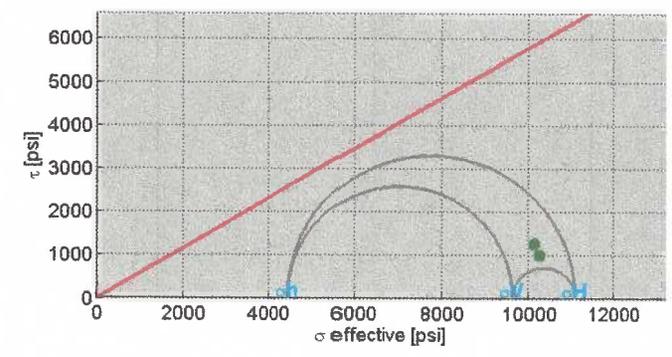
Calculate

d) PPF: Pore Pressure to Slip

Help



Stress Regime: Strike-Slip Faulting



Stereonet Show: Fault Normals

# Fault Slip Potential

MODEL INPUTS    GEOMECHANICS    **PROB. GEOMECH**    HYDROLOGY    PROB. HYDRO    INTEGRATED

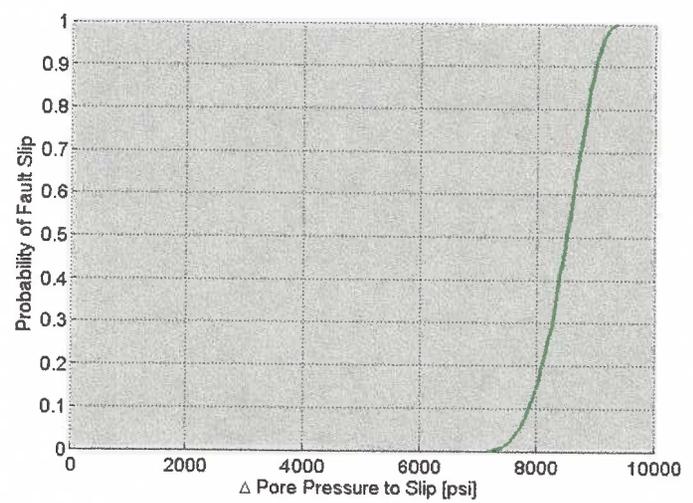
Fault Selector:

All Faults

- Fault #1
- Fault #2
- Fault #3
- Fault #4
- Fault #5
- Fault #6

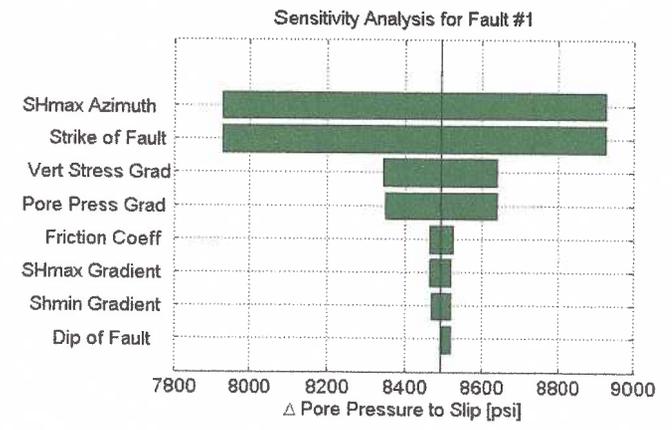
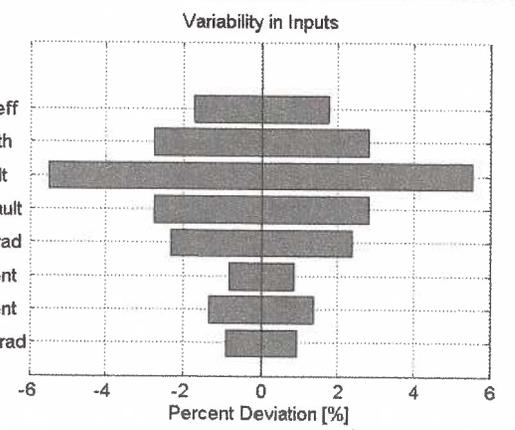
Calculate

Load Distributions    **Run Analysis**



Max Delta PP [psi]:

Export CDF data    Show Input Distributions



# Fault Slip Potential

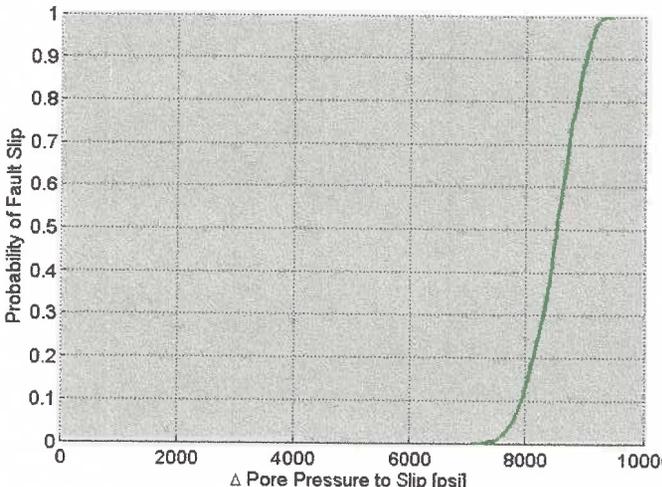
MODEL INPUTS    GEOMECHANICS    **PROB. GEOMECH**    HYDROLOGY    PROB. HYDRO    INTEGRATED

Fault Selector:

- All Faults
- Fault #1
- Fault #2**
- Fault #3
- Fault #4
- Fault #5
- Fault #6

Calculate

Load Distributions    **Run Analysis**

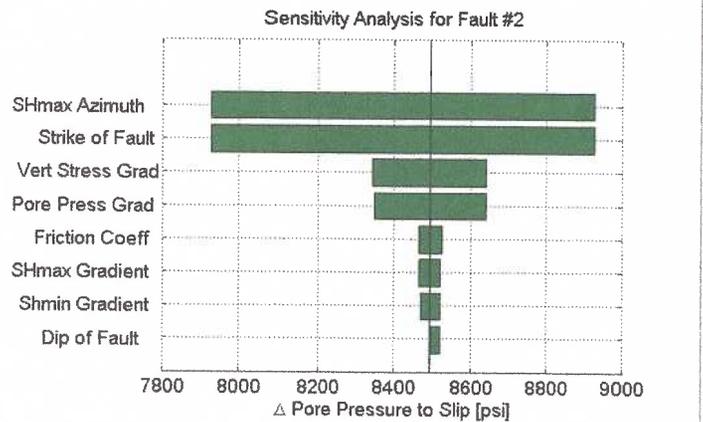
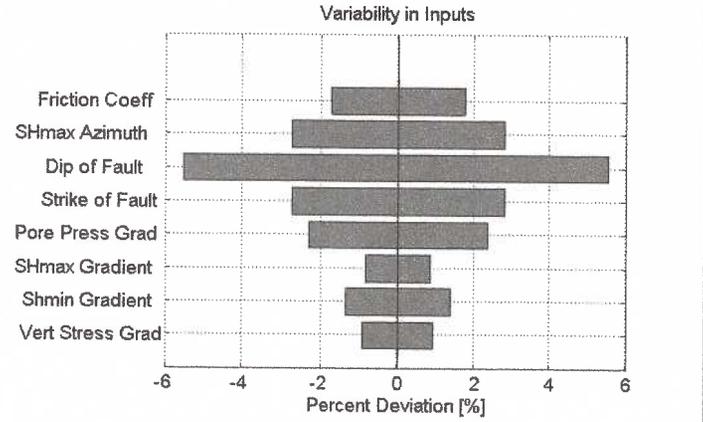


Probability of Fault Slip

$\Delta$  Pore Pressure to Slip [psi]

Max Delta PP [psi]:

Export CDF data    Show Input Distributions



# Fault Slip Potential

- MODEL INPUTS
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- HYDROLOGY
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- INTEGRATED

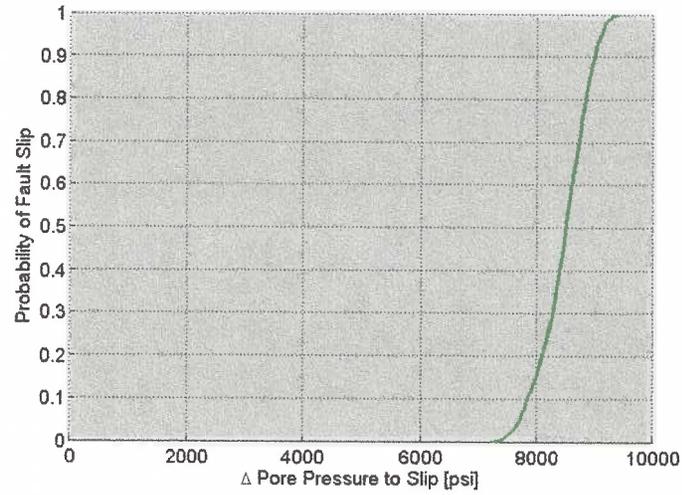
Fault Selector:

All Faults

- Fault #1
- Fault #2
- Fault #3**
- Fault #4
- Fault #5
- Fault #6

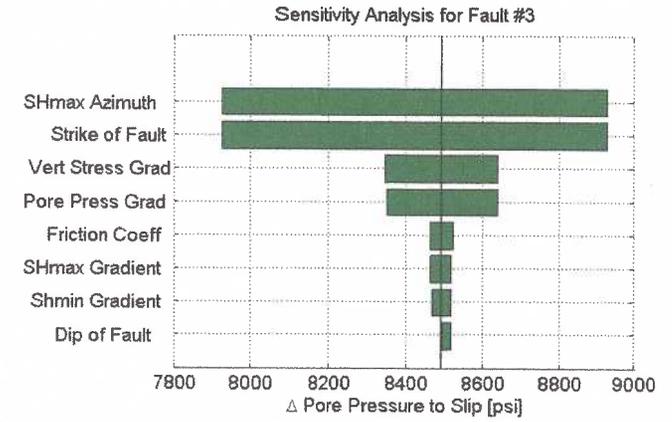
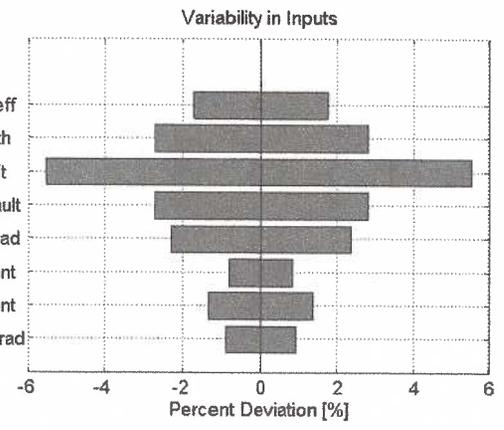
Calculate

- Load Distributions
- Run Analysis**



Max Delta PP [psi]:

- Export CDF data
- Show Input Distributions



# Fault Slip Potential

- MODEL INPUTS
- GEOMECHANICS
- PROB. GEOMECH**
- HYDROLOGY
- PROB. HYDRO
- INTEGRATED

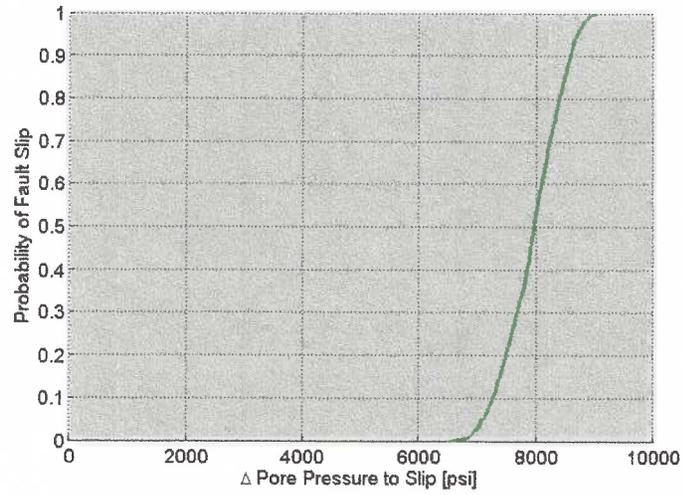
Fault Selector:

All Faults

- Fault #1
- Fault #2
- Fault #3
- Fault #4**
- Fault #5
- Fault #6

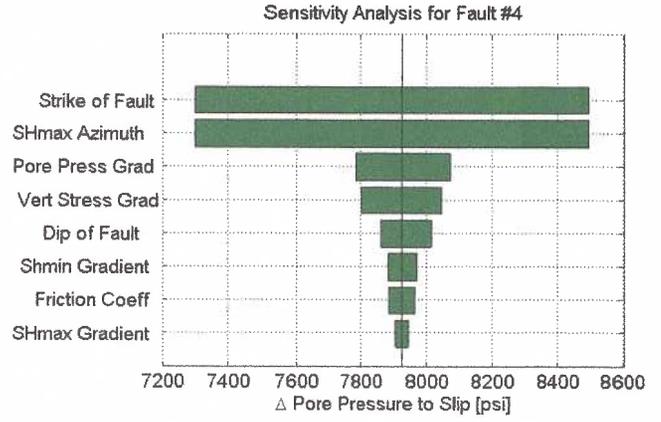
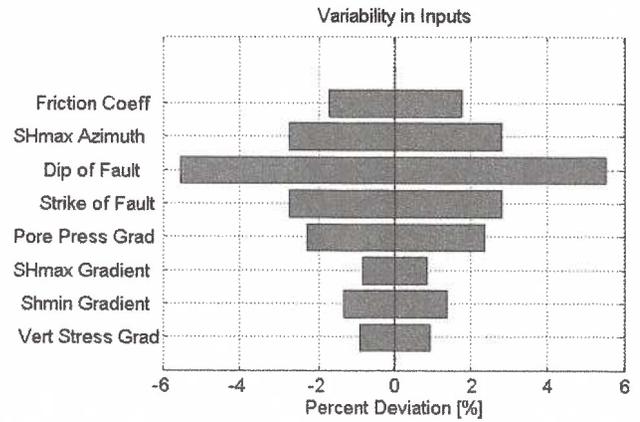
Calculate

- Load Distributions
- Run Analysis**



Max Delta PP [psi]:

- Export CDF data
- Show Input Distributions



# Fault Slip Potential

- MODEL INPUTS
- GEOMECHANICS
- PROB. GEOMECH**
- HYDROLOGY
- PROB. HYDRO
- INTEGRATED

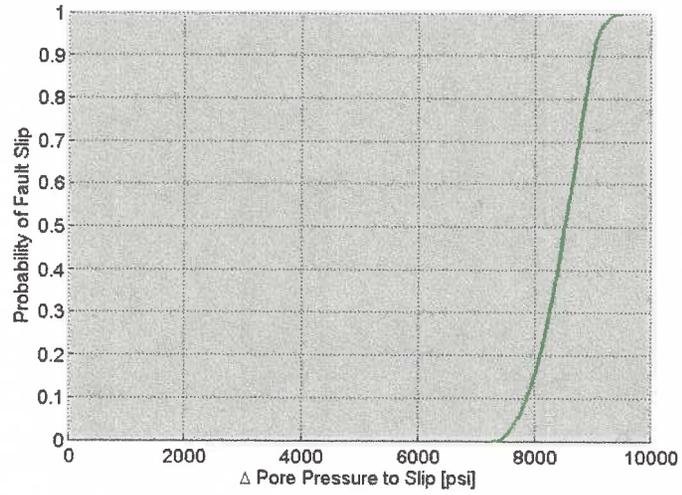
Fault Selector:

All Faults

- Fault #1
- Fault #2
- Fault #3
- Fault #4
- Fault #5**
- Fault #6

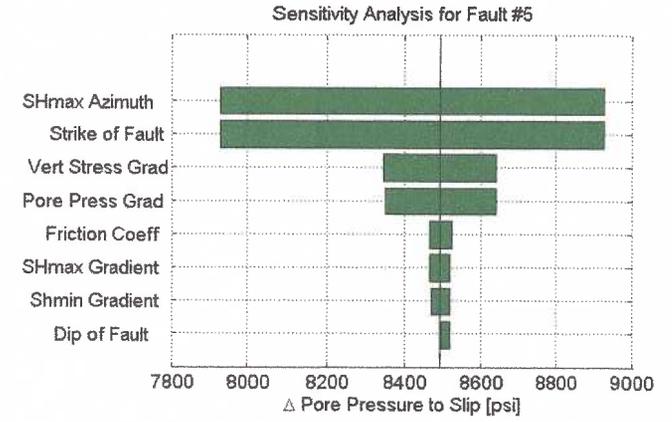
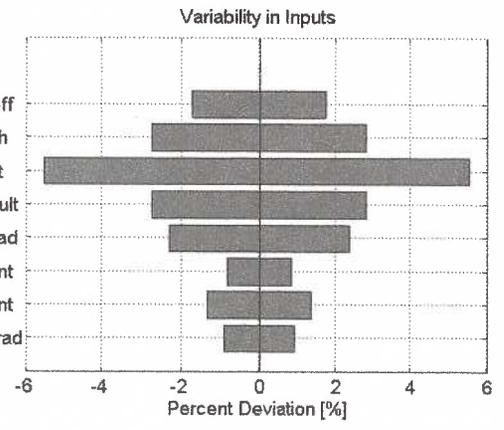
Calculate

- Load Distributions
- Run Analysis**



Max Delta PP [psi]:

- Export CDF data
- Show Input Distributions



# Fault Slip Potential

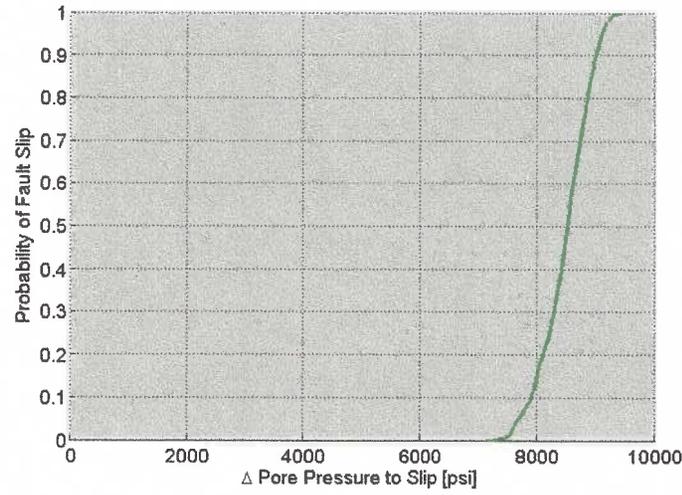
- MODEL INPUTS
- GEOMECHANICS
- PROB. GEOMECH**
- HYDROLOGY
- PROB. HYDRO
- INTEGRATED

Fault Selector:

- All Faults
- Fault #1
  - Fault #2
  - Fault #3
  - Fault #4
  - Fault #5
  - Fault #6**

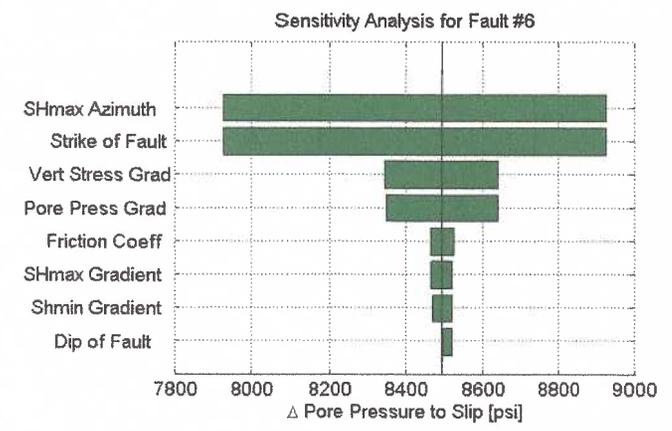
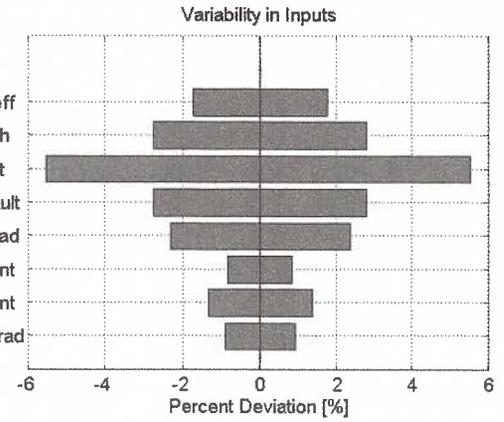
Calculate

- Load Distributions
- Run Analysis**



Max Delta PP [psi]: 10000

- Export CDF data
- Show Input Distributions



# Fault Slip Potential

MODEL INPUTS    GEOMECHANICS    PROB. GEOMECH    HYDROLOGY    PROB. HYDRO    **INTEGRATED**

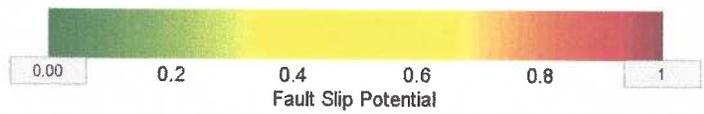
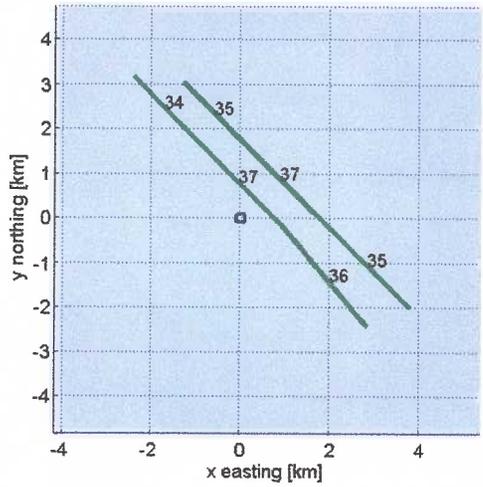
Fault Selector:

- All Faults
- Fault #1: 0.00 FSP
- Fault #2: 0.00 FSP
- Fault #3: 0.00 FSP
- Fault #4: 0.00 FSP
- Fault #5: 0.00 FSP
- Fault #6: 0.00 FSP

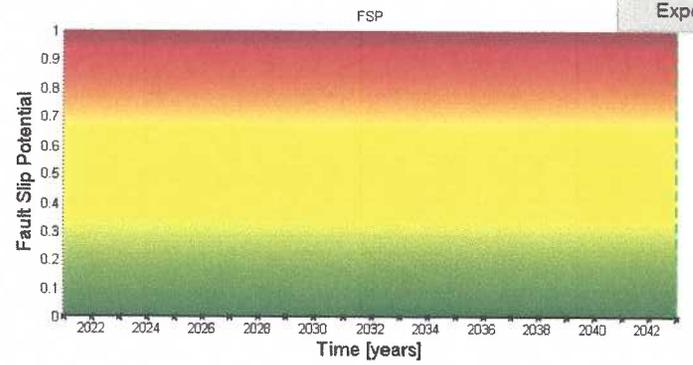
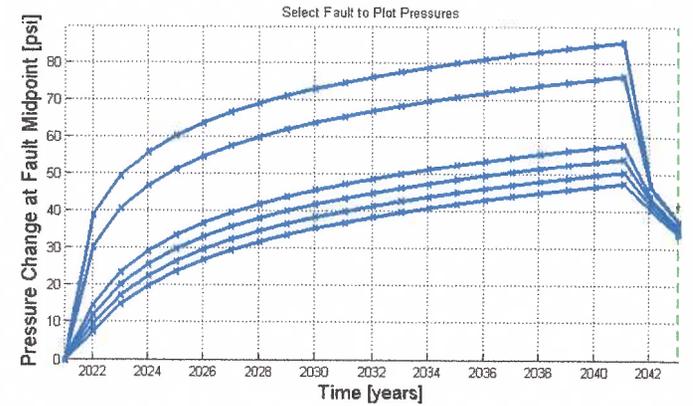
Calculate

b) PP Change at fault [psi]

Summary Plots



Year: 2043



Export

Export

# Fault Slip Potential

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

HYDROLOGY

PROB. HYDRO

INTEGRATED

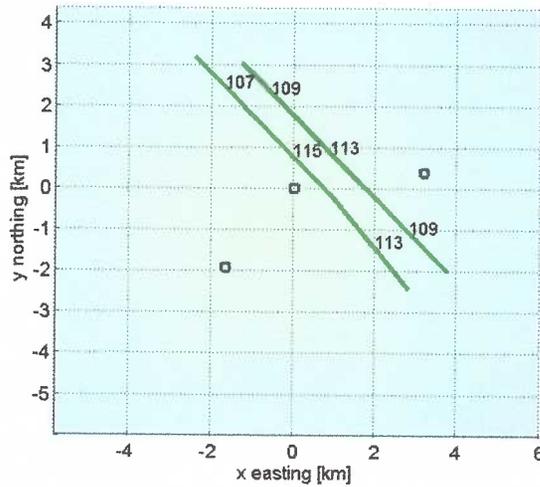
Fault Selector:

- All Faults
- Fault #1 0.00 FSP
- Fault #2 0.00 FSP
- Fault #3 0.00 FSP
- Fault #4 0.00 FSP
- Fault #5 0.00 FSP
- Fault #6 0.00 FSP

Calculate

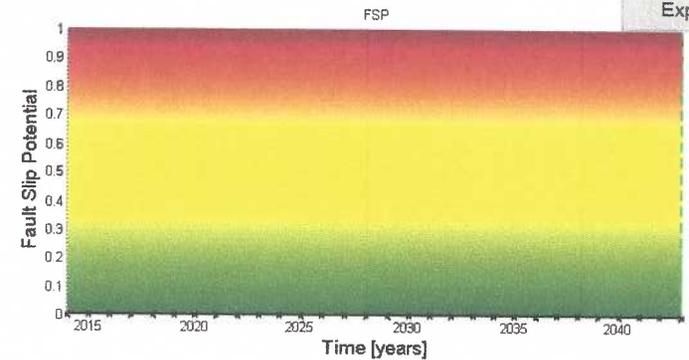
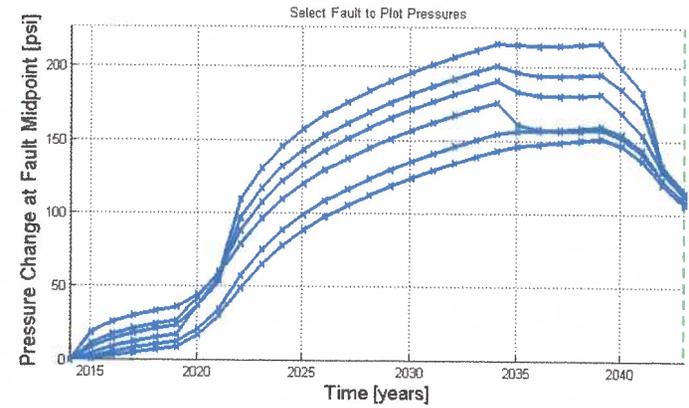
b) PP Change at fault [psi]

Summary Plots



Year:

2043



Export

Export

# Fault Slip Potential

MODEL INPUTS    GEOMECHANICS    PROB. GEOMECH    HYDROLOGY    PROB. HYDRO    **INTEGRATED**

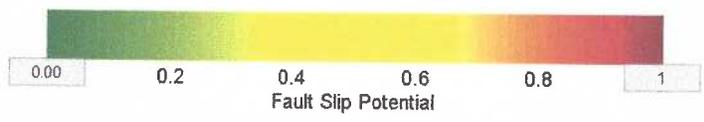
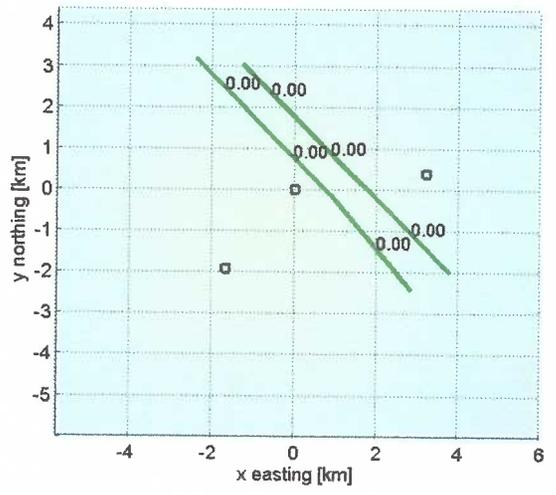
Fault Selector:

- All Faults
- Fault #1: 0.00 FSP
- Fault #2: 0.00 FSP
- Fault #3: 0.00 FSP
- Fault #4: 0.00 FSP
- Fault #5: 0.00 FSP
- Fault #6: 0.00 FSP

Calculate

c) Fault Slip Potential

Summary Plots



Year: 2043

