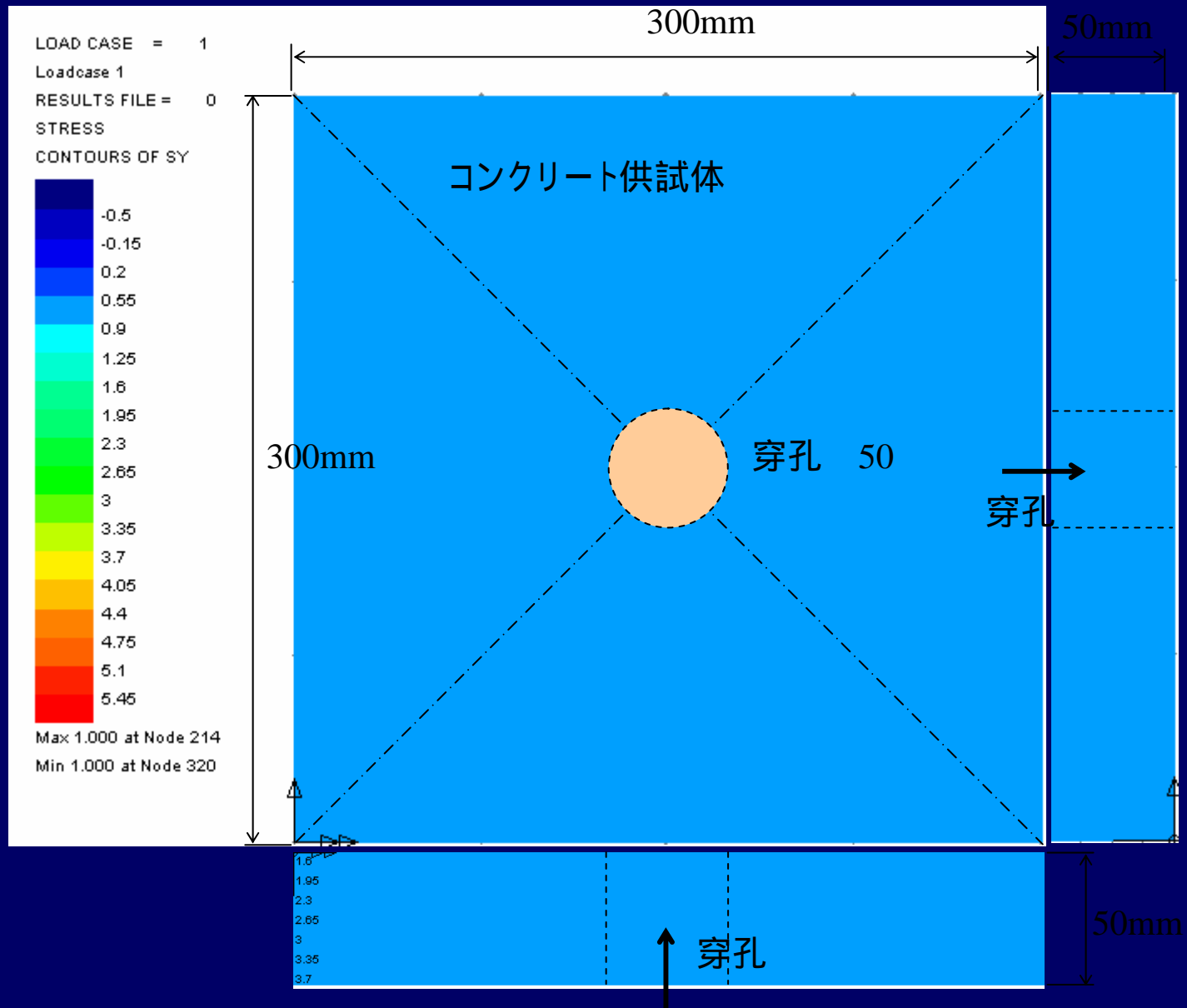


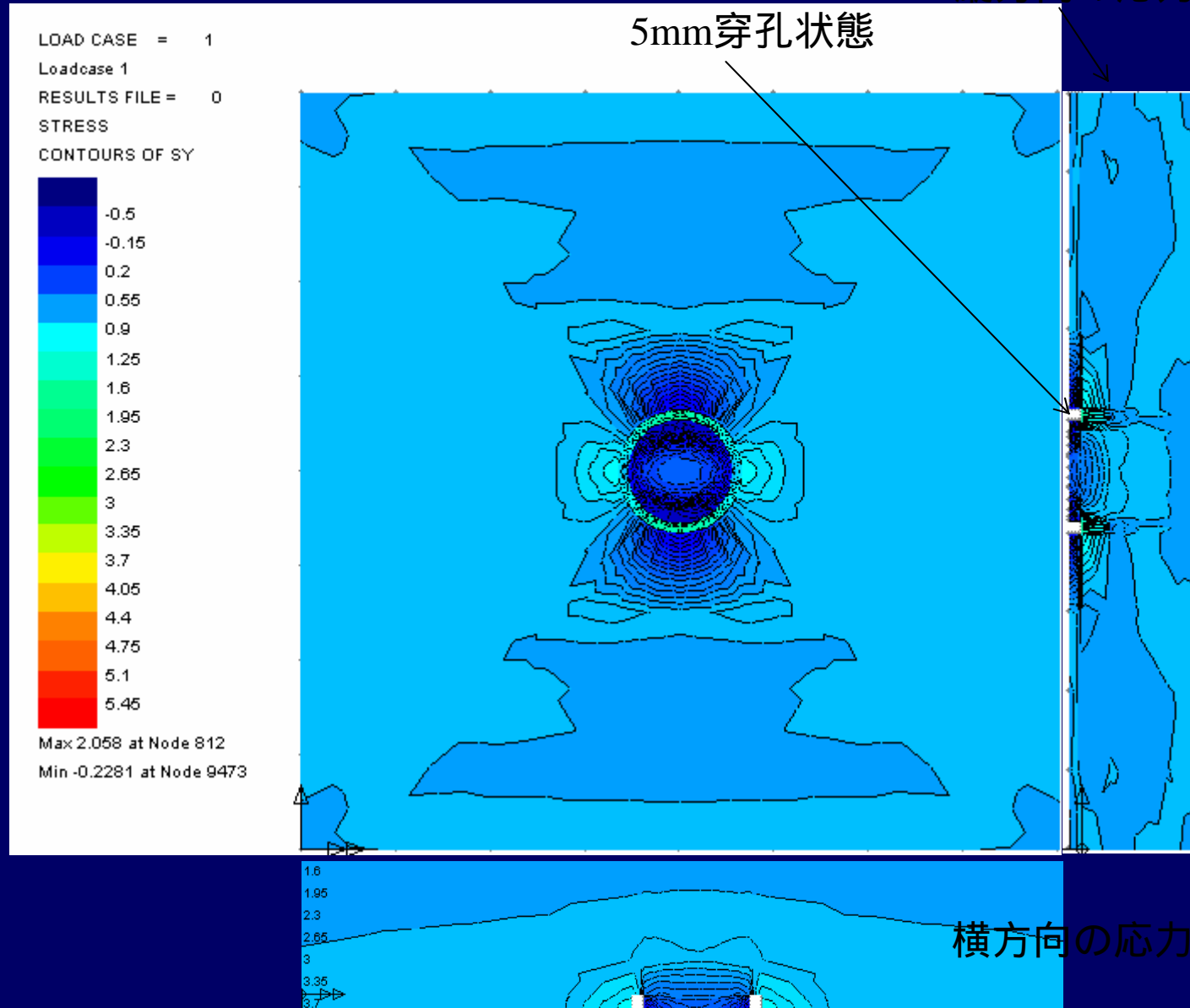
## 有限要素法による 最大せん断応力の計算

- $300 \times 300 \times 50$ のコンクリート供試体に10tfの縦方向の荷重をかけ、その中央を、50のコアドリルで穿孔し、応力解法を行った場合の最大せん断応力を、5mm間隔で有限要素法で計算した結果を示します。
- 穿孔するにしたがって変化する応力状態がよく分かります。

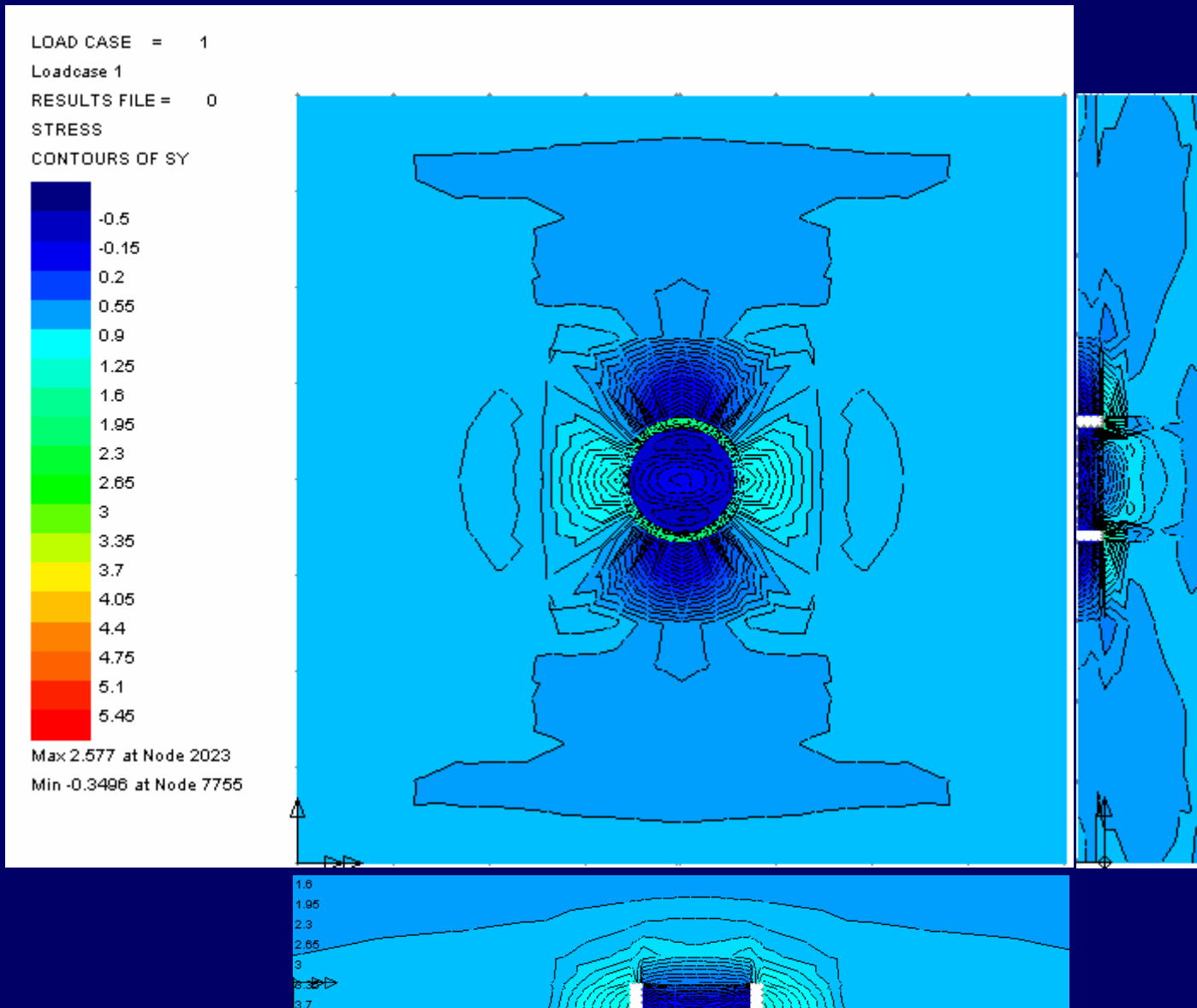
# 穿孔 0mmの状態



# 穿孔 5mmの状態



# 穿孔 10mmの状態



# 穿孔 15mmの状態

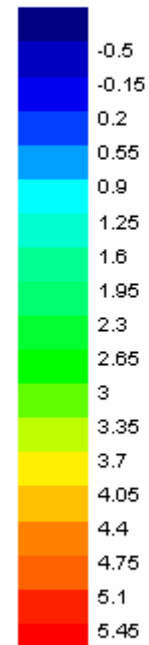
LOAD CASE = 1

Loadcase 1

RESULTS FILE = 0

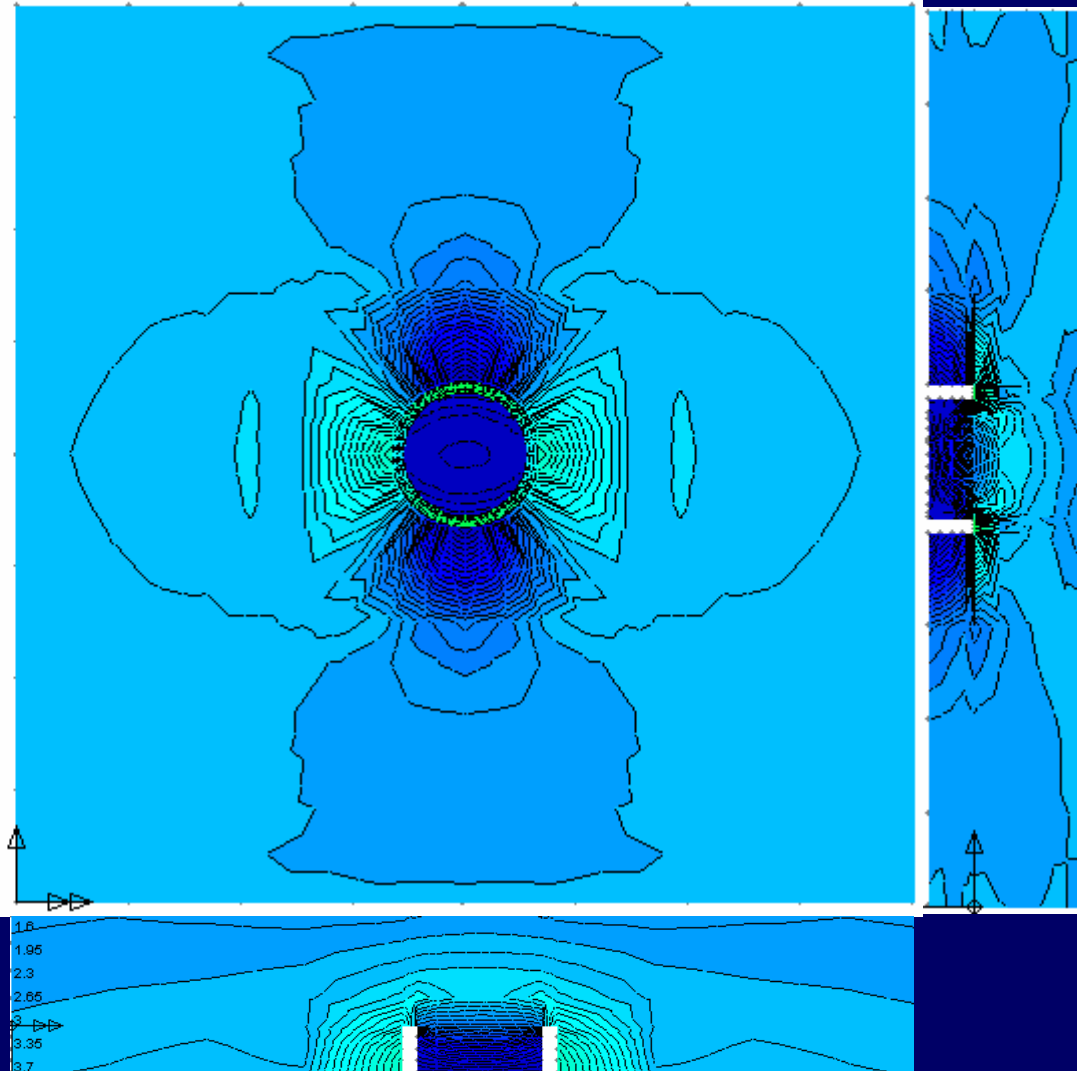
STRESS

CONTOURS OF SY

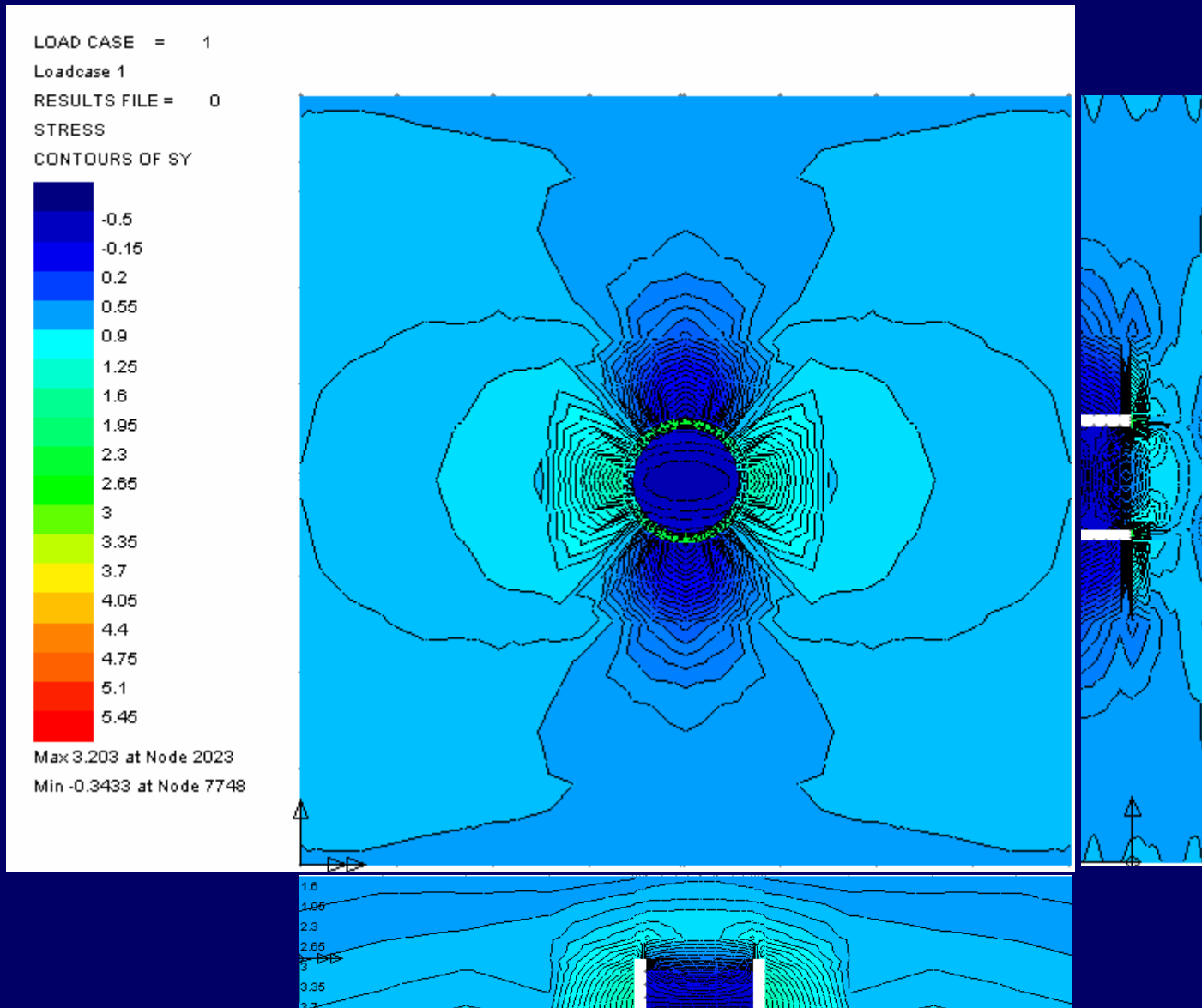


Max 2.915 at Node 2023

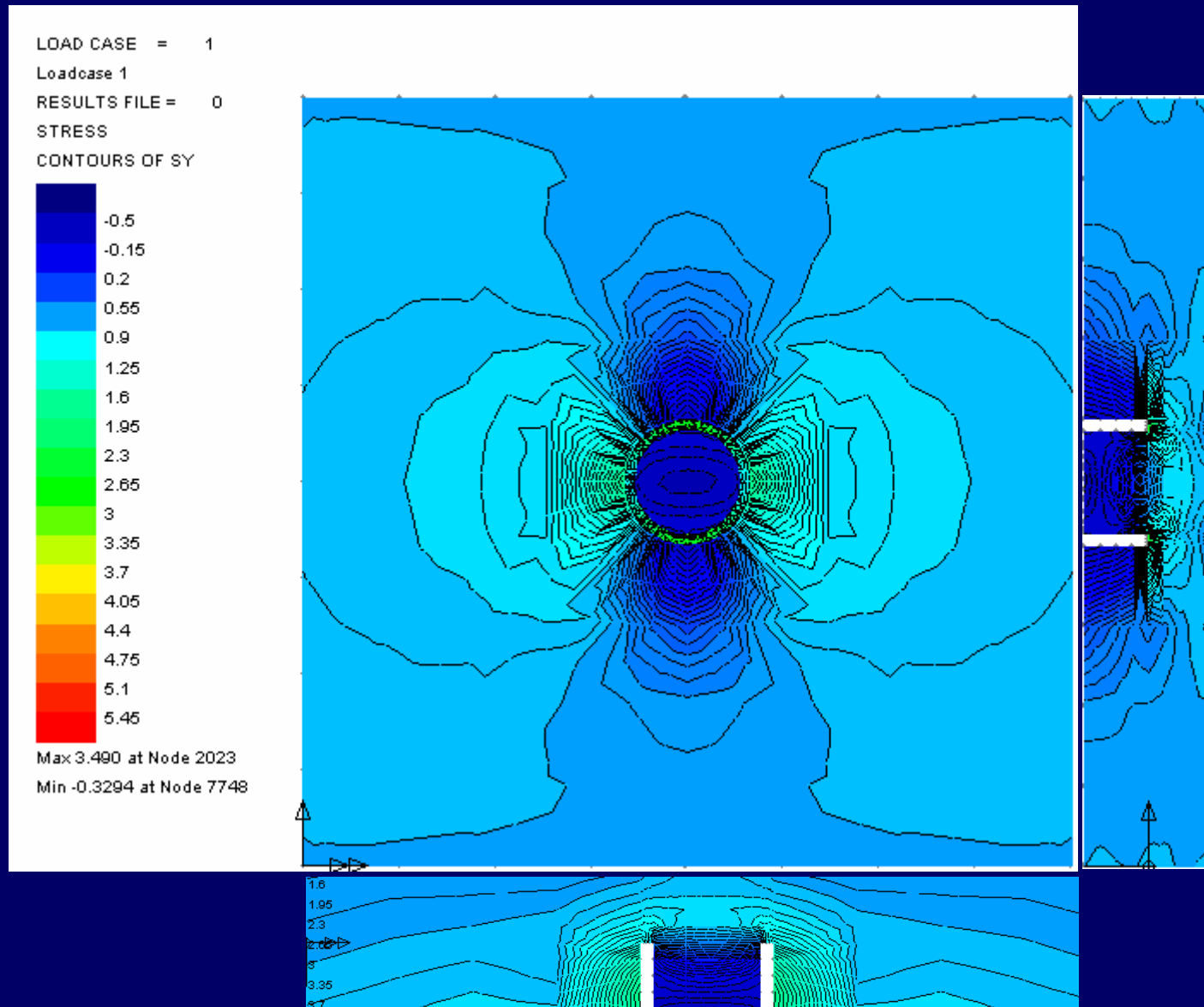
Min -0.3378 at Node 7765



# 穿孔 20mmの状態



# 穿孔 25mmの状態



# 穿孔 30mmの状態

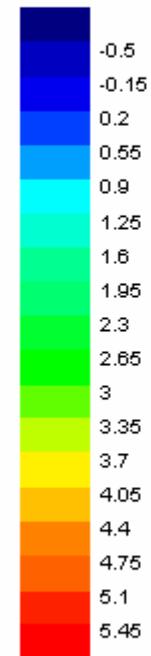
LOAD CASE = 1

Loadcase 1

RESULTS FILE = 0

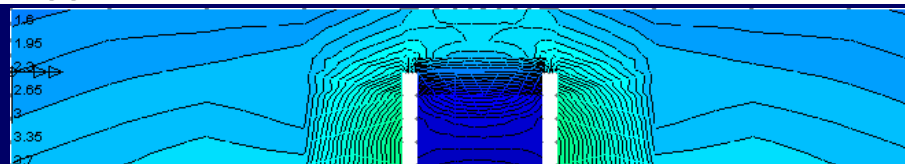
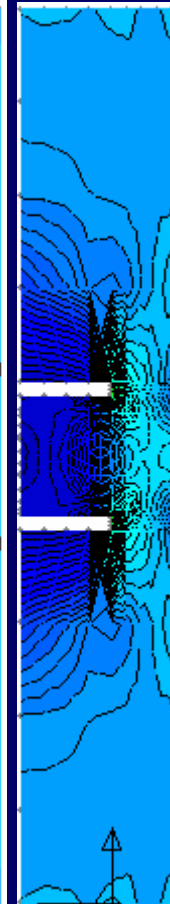
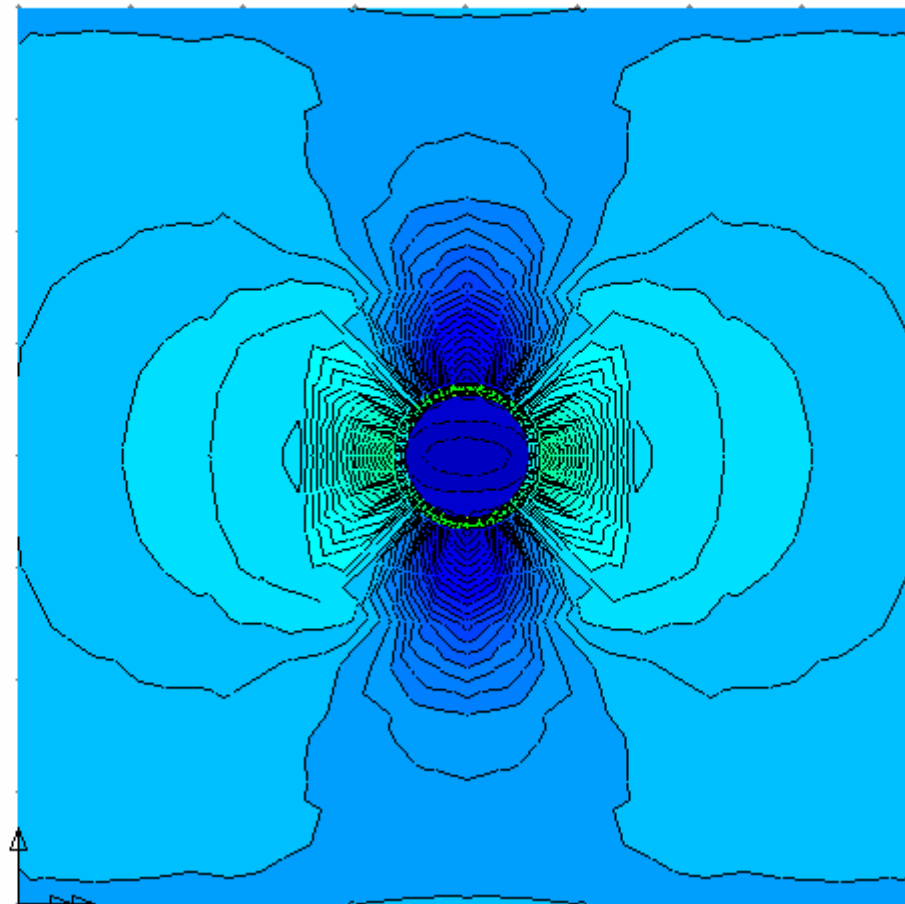
STRESS

CONTOURS OF SY



Max 3.811 at Node 2023

Min -0.3077 at Node 7641





# 穿孔 35mmの状態

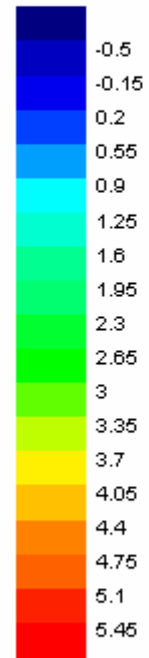
LOAD CASE = 1

Loadcase 1

RESULTS FILE = 0

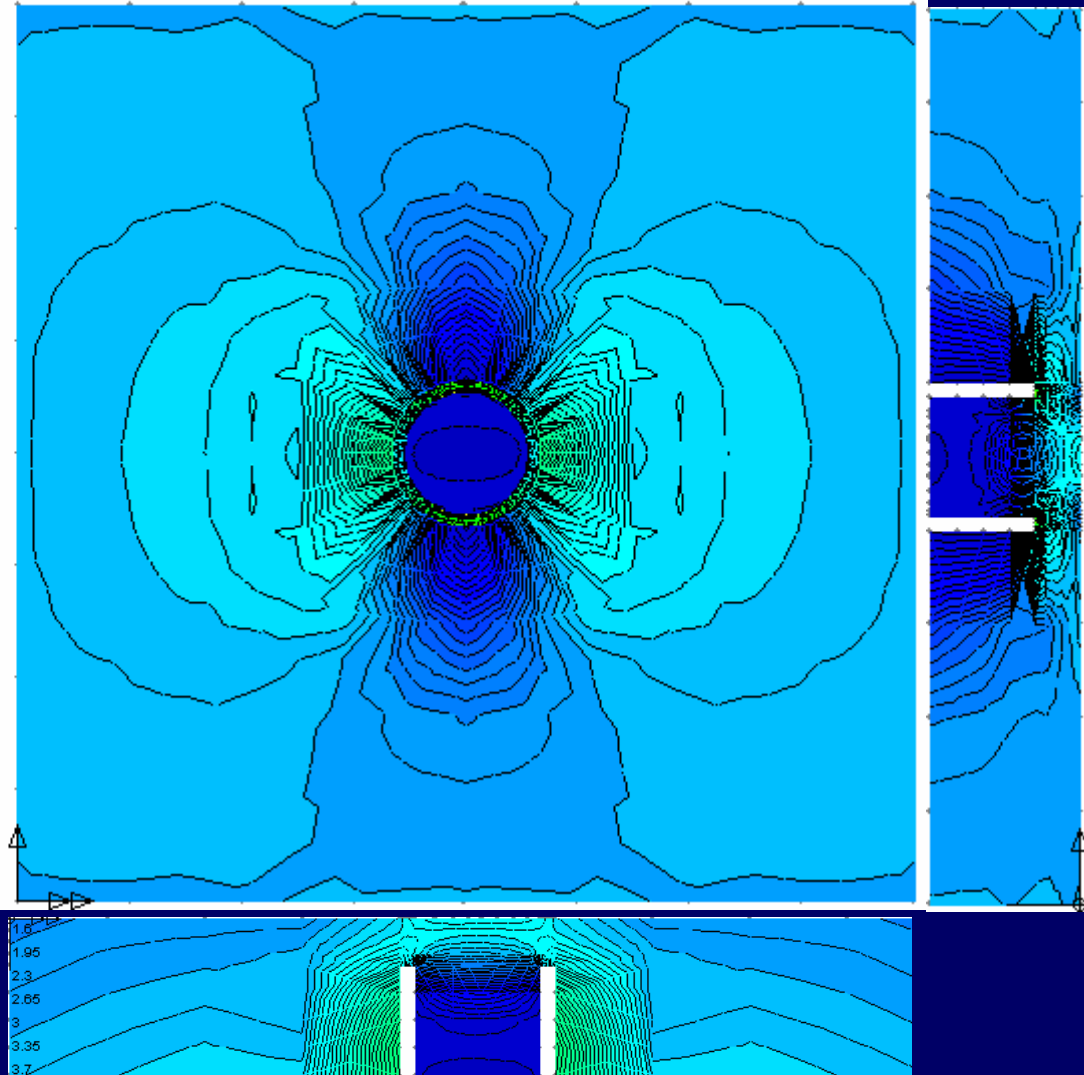
STRESS

CONTOURS OF SY

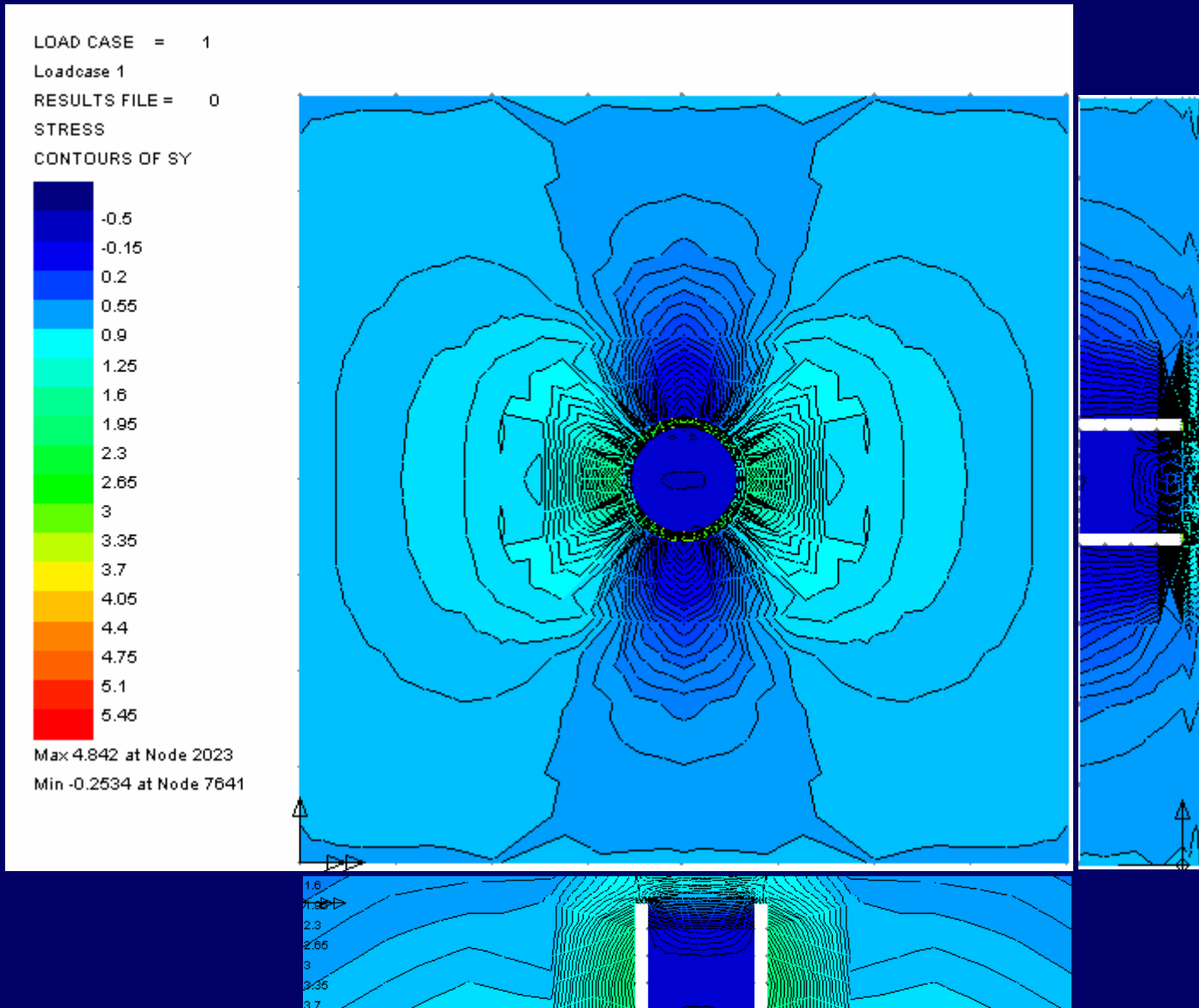


Max 4.222 at Node 2080

Min -0.2819 at Node 7585



# 穿孔 40mmの状態



# 穿孔 45mmの状態

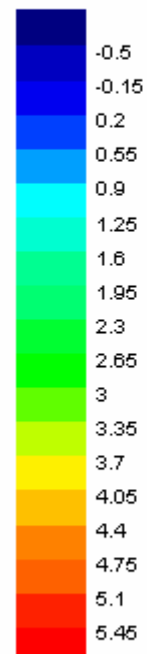
LOAD CASE = 1

Loadcase 1

RESULTS FILE = 0

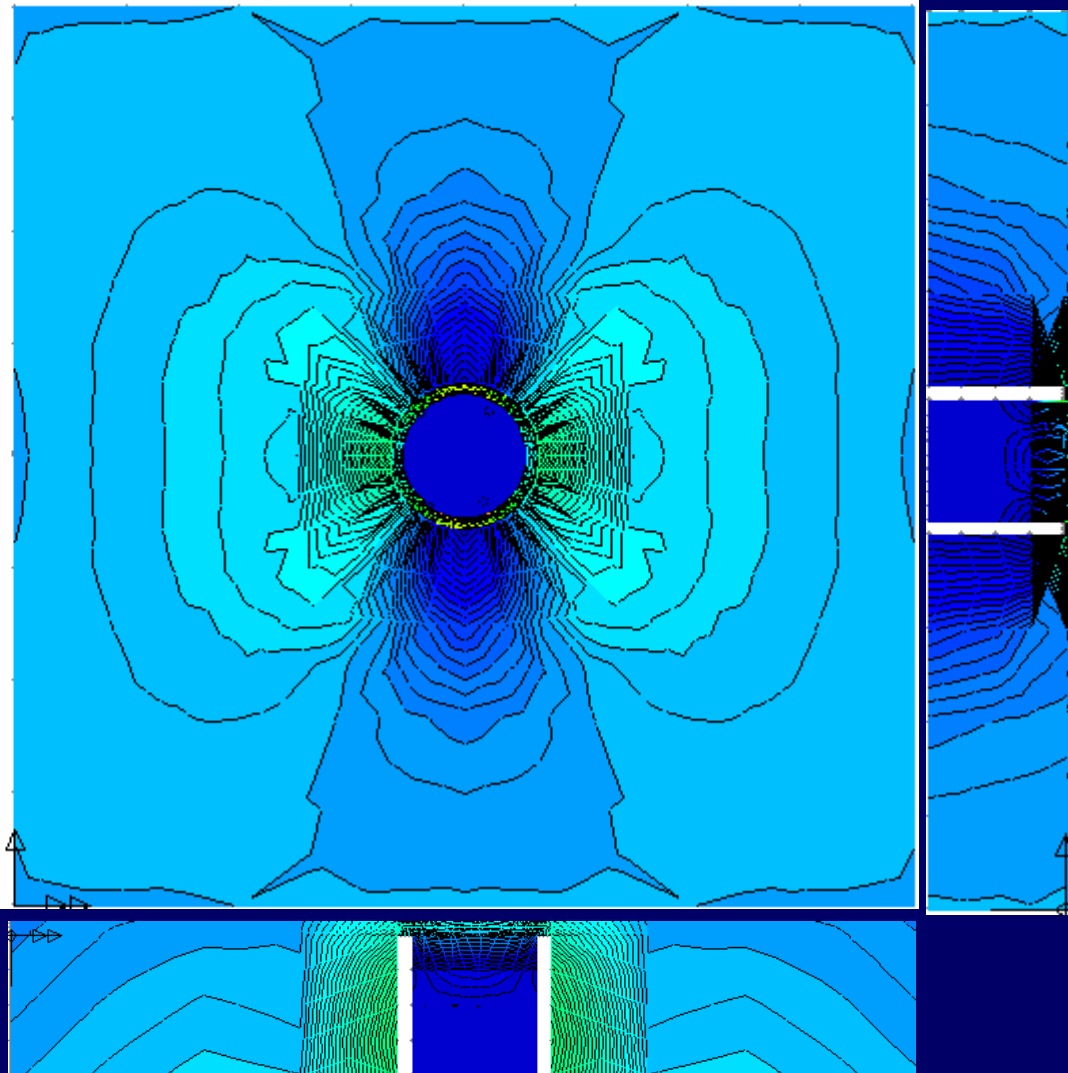
STRESS

CONTOURS OF  $S_y$



Max 5.975 at Node 1907

Min -0.2173 at Node 9506



# 穿孔 50mmの状態 (完全穿孔)

