



| REV | DATE | DES | REVISION DESCRIPTION | CADD | CHK | RW |
|----------|------|-----|---------------------------|------|-----|-----|
| 12/13/10 | JDS | | COMPLETENESS COMMENT | JDS | JRH | JRH |
| 09/09/10 | JDS | | COMPLETENESS COMMENT | JDS | JRH | JRH |
| 03/31/10 | JDS | | ORIGINAL PERMIT SUBMITTAL | JDS | JRH | JRH |

PROJECT: SOUTH HEART COAL LLC
SOUTH HEART LIGNITE MINE
SOUTH HEART, NORTH DAKOTA

TITLE: **WORST CASE BOND MAP**

PROJECT No. 4284-01-400 FILE No. Worst Case Bond Map.dwg
DESIGN JDS 01/22/10 SCALE AS SHOWN REV. 2
CADD JDS 09/08/10
CHECK JRH 12/13/10
REVIEW JRH 12/13/10

NORWEST CORPORATION

Figure 4.1-5a

LEGEND

- PERMIT BOUNDARY
- MINE PIT BOUNDARY
- WORST CASE SCENARIO DISTURBANCE BOUNDARY
- DRAINAGE WAY
- HAUL ROUTE
- SITE ACCESS ROAD
- PIT ACCESS ROAD/DUMP ACCESS ROAD
- COAL ACCESS RAMP
- TOPOGRAPHY (5 FT. INTERVALS)
- PONDS
- DITCH
- TOWNSHIP AND RANGE
- SECTION
- SUITABLE OVERBURDEN MATERIAL STOCKPILE
- SUITABLE PLANT GROWTH MATERIAL STOCKPILE
- CULVERT
- SPOILS AREA
- REGRADE AREA
- RE-TOPSOIL AREA
- RE-VEGETATION AREA

YEAR MINED

- YEAR 2014
- YEAR 2015
- YEAR 2016
- YEAR 2017
- YEAR 2018

REFERENCE

Permit Boundary: Norwest, 11/12/2009.
Disturbance Boundary: Norwest, 02/05/2010.
Mine Pit Boundary: Norwest, 01/20/2010.
PLSS: ND HUB, 6/20/2006.
Drainage Ways: Digitized from aerial photography, 6/19/2007.
Contours: Generated from aerial photography stereo pairs, 6/19/2007.
Projection: StatePlane, North Dakota South, NAD27, Feet.