

The Squiggly Ditch: A Case Study

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Indiana AML

LOG CREEK CHURCH – SITE 900



SOUTH HIGHWALL AREA

REASONS FOR NATURAL LANDFORM RECLAMATION

- Varied landscape for better vegetation success (more species)
- Elimination of rock lined ditches
- More natural looking landscape
- Costs are within +/-10% of conventional reclamation
- Software allows for ease of design

CARLSON - NATURAL REGRADE

- The land after mining is no longer influenced by underlying rocks.
- Indiana's thick unconsolidated land had very similar input parameters as NM.
- Input parameters must be gathered from thick unconsolidated in the region.
- Measurements require several days of field time, but this should be a one time event.



“A” CHANNEL LOOKING DOWNSTREAM



“A” CHANNEL LOOKING UP STREAM

A photograph of a forest stream bed. The stream bed is covered in a thick layer of fallen brown leaves and several large, dark logs. A single, light-colored tree trunk stands vertically in the center of the stream bed. The surrounding forest floor is also covered in fallen leaves and some green ferns. The overall scene is a natural, undisturbed forest environment.

STABLE NOT STATIC

PRE-RECLAMATION

561

554

546

538

520



CONVENTIONAL RECLAMATION

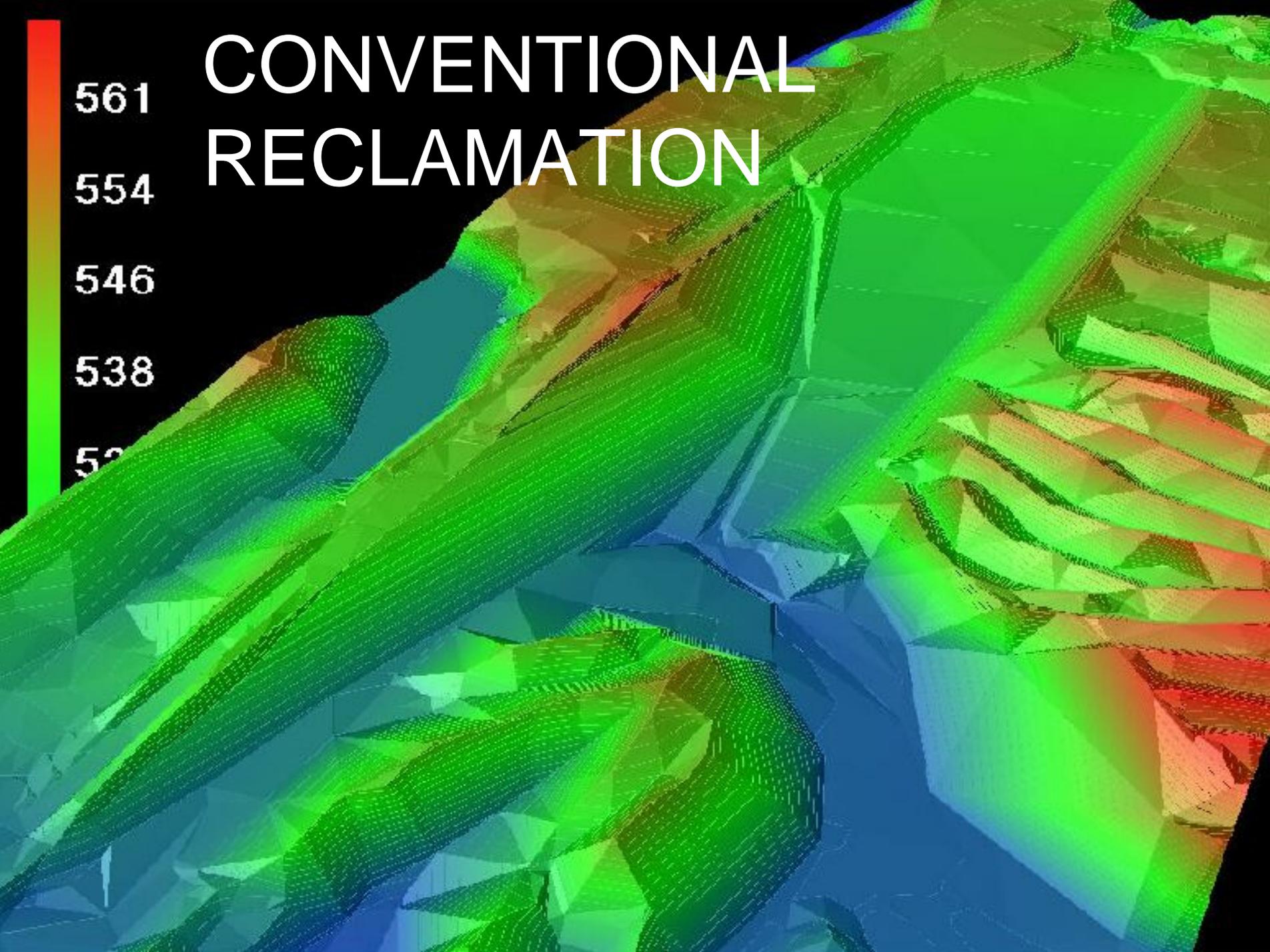
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NATURAL LANDFORM

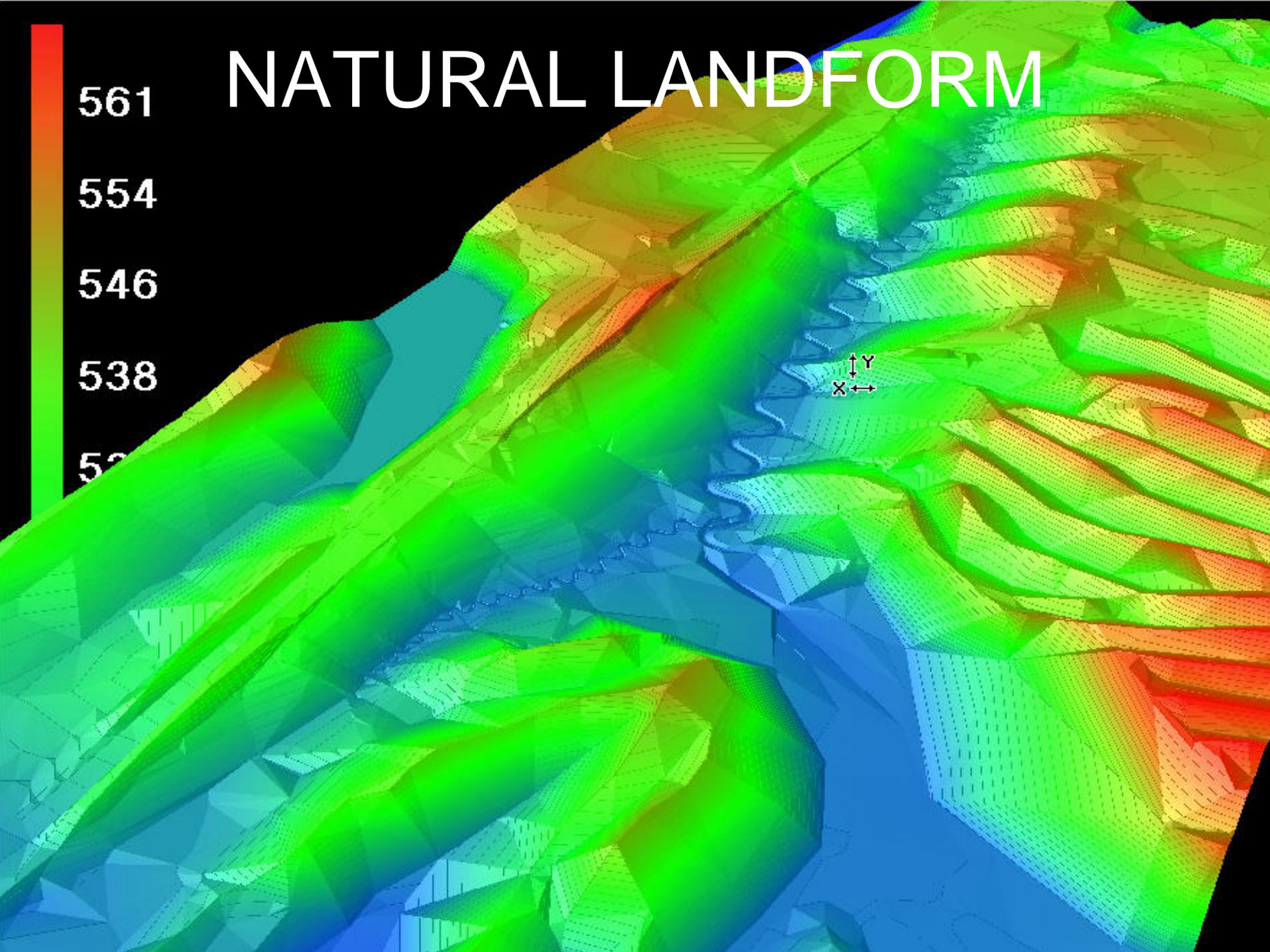
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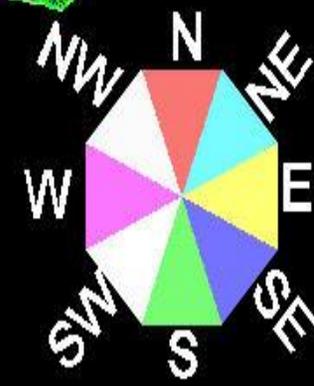
RECLAMATION COSTS

CONVENTIONAL VS NATURAL

BID	CONVENTIONAL	NATURAL	%DIFF
#1	\$245,021.70	\$237,822.20	-3%
#2	\$269,014.00	\$294,668.00	+9%
#3	\$537,000.00	\$417,000.00	-23%
AVG	\$350,345	\$316,497	-10%

N	21%
NE	12%
E	3%
SE	4%
S	30%
SW	9%
W	5%
NW	16%

NATURAL LANDFORM



CONVENTIONAL

N	5%
NE	4%
E	5%
SE	0%
S	24%
SW	9%
W	47%
NW	6%

LAND ASPECT NATURAL VS CONVENTIONAL







LONG TERM QUESTIONS

- Will the completed project be stable long term?
- Will the vegetation be less mono-cultured and more varied?
- Can technology developed for the arid southwest be applied to the wetter areas of the country?

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