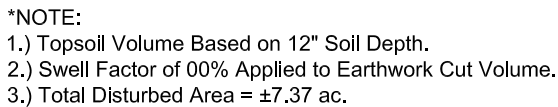


Detailed Site Plan  
Pit Design Plan and Cross Sections

0 120



GRAPHIC SCALE IN FEET  
1 INCH = 120 FEET



ESTIMATED EARTHWORK QUANTITIES (cy)				
ITEM	CUT	FILL	TOPSOIL	EXCESS
PAD	68750	2400	600	65750
PIT	30400			30400
TOTALS	99150	2400	600	96150

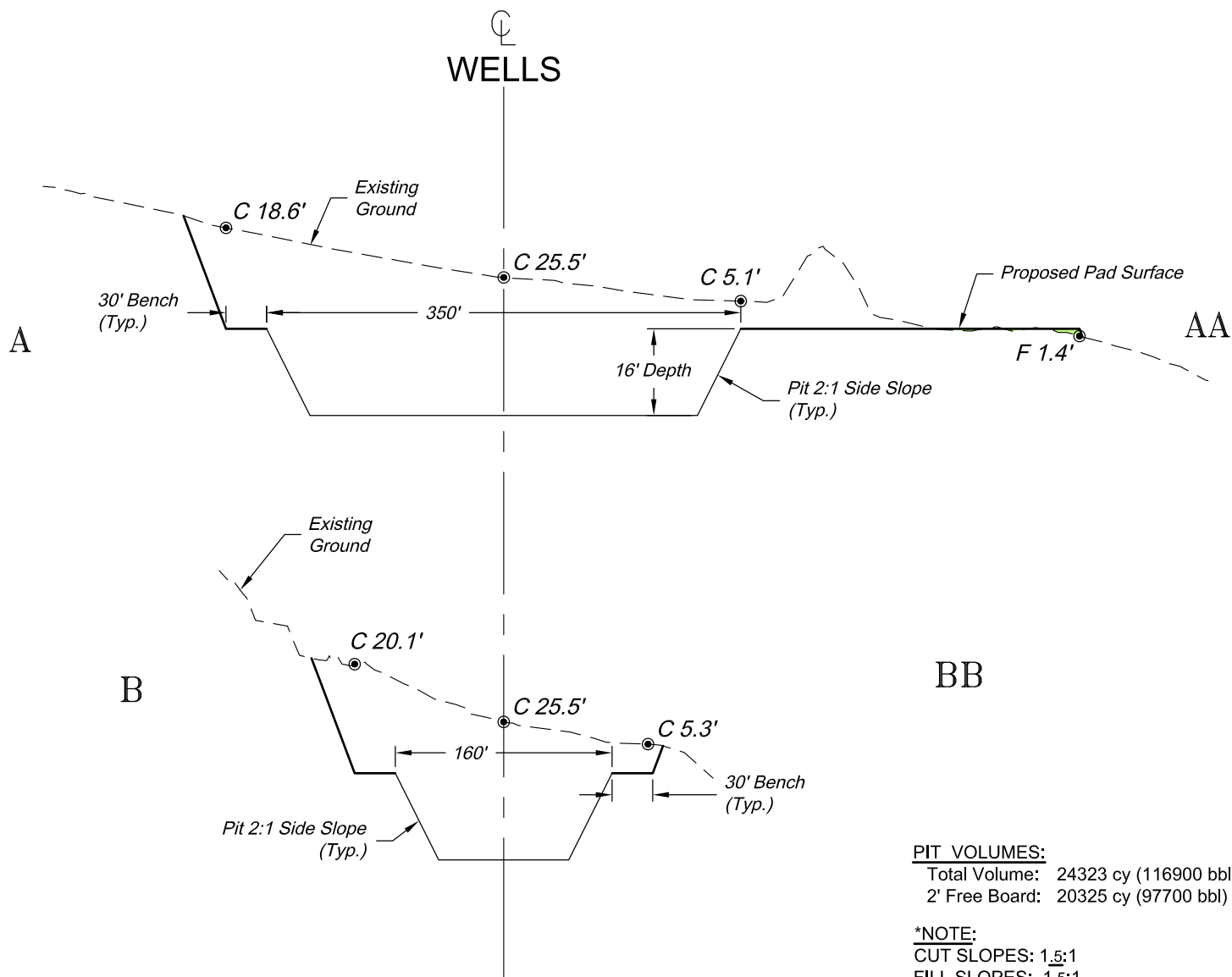
10000 1st Street  
 Colorado 81650  
 505-2720  
 505-2773


**BOOKCLIFF**  
 Survey Services, Inc.

SCALE: 1" = 120'  
DATE: 2/26/13  
PLAT: 1 of 4  
PROJECT: Valley  
DFT: cws

**Construction Plan Prepared for:**  
**WPXENERGY.** WPX Energy Rocky Mountain, LLC

Smith Gulch 31-32-796 - Plat 1  
CONSTRUCTION LAYOUT



**PIT VOLUMES:**

Total Volume: 24323 cy (116900 bbl)  
2' Free Board: 20325 cy (97700 bbl)

**\*NOTE:**

CUT SLOPES: 1.5:1  
FILL SLOPES: 1.5:1,  
UNLESS OTHERWISE NOTED.

SCALE: Horiz.: 1" = 120'  
Vert.: 1" = 30'

136 East Third Street  
Rifle, Colorado 81650  
Ph. (970) 625-2720  
Fax (970) 625-2773



**BOOKCLIFF**  
Survey Services, Inc.

SCALE: As Noted  
DATE: 2/26/13  
PLAT: 2 of 4  
PROJECT: Valley  
DFT: cws

**Construction Plan Prepared for:**  
**WPXENERGY**

WPX Energy Rocky Mountain, LLC

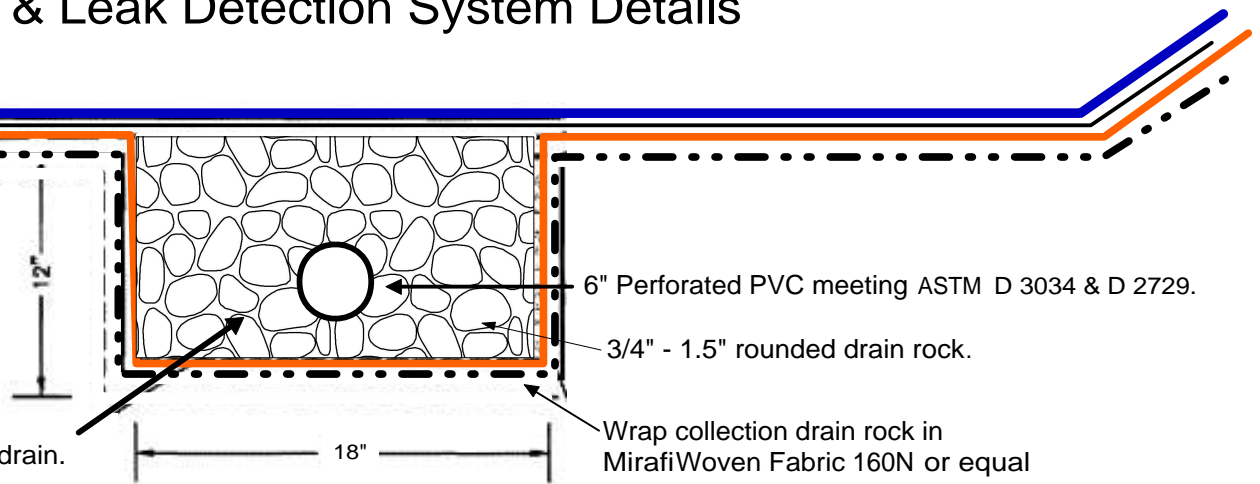
*Smith Gulch 31-32-796 - Plat 2*  
**CONSTRUCTION LAYOUT**  
**CROSS SECTIONS**

# Liner & Leak Detection System Details

## Pit Liner System:

- \* 60 milHDPE Liner
- \* 200 milHypernetGeonetDrain Mat
- \* 40 milHDPE Liner
- \* GCL Geosyntetic Bentonite Liner

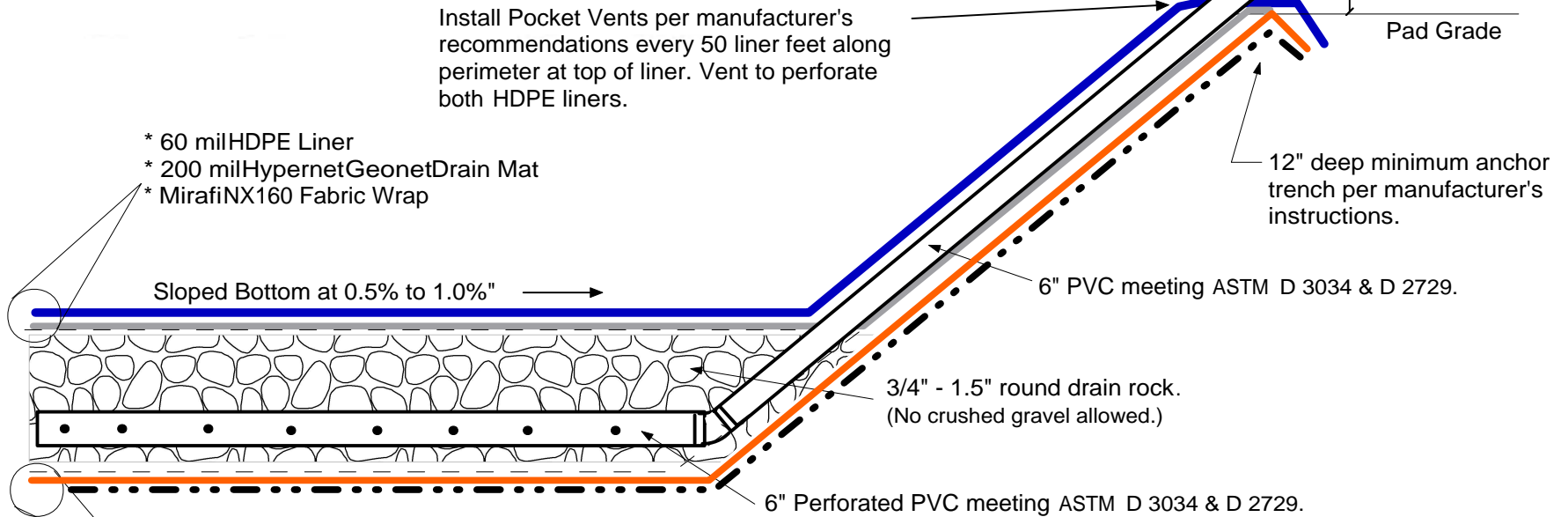
Place pipe 2" above bottom of collection drain.  
Slope pipe toward deep end of pit.



Install Pocket Vents per manufacturer's recommendations every 50 liner feet along perimeter at top of liner. Vent to perforate both HDPE liners.

- \* 60 milHDPE Liner
- \* 200 milHypernetGeonetDrain Mat
- \* MirafiNX160 Fabric Wrap

Sloped Bottom at 0.5% to 1.0%"



- \* Mirafi160N Fabric Wrap
- \* 40 milHDPE Liner
- \* GCL Geosyntetic Bentonite Liner
- \* Prepared subgrade

\* Install HPDE / Bentonite Liners;  
Hypernetand Vent Pockets  
per manufacturer's instructions.