

Legend

- Water Well
- Pad
- Stream
- 1000' Buffer

Williams Production RMT

Plat 5C

MV 29-27 Hydrology Map
T6S R96W, Section 27



Hydrology and Channel Design Summary

Peak Discharge

Drainage Basin (acres): 70.9
 25-year Storm (in.): 1.27
 Rational C Factor: 0.3

Channel Size

(4' bottom x 2' depth: 2H:1V side slopes)
 Manning's n: 0.03
 Slope: 0.01
 Channel Type: Natural
 Channel Shape: Trapezoid

Rational Method Peak

Discharge Estimate (cfs): 27

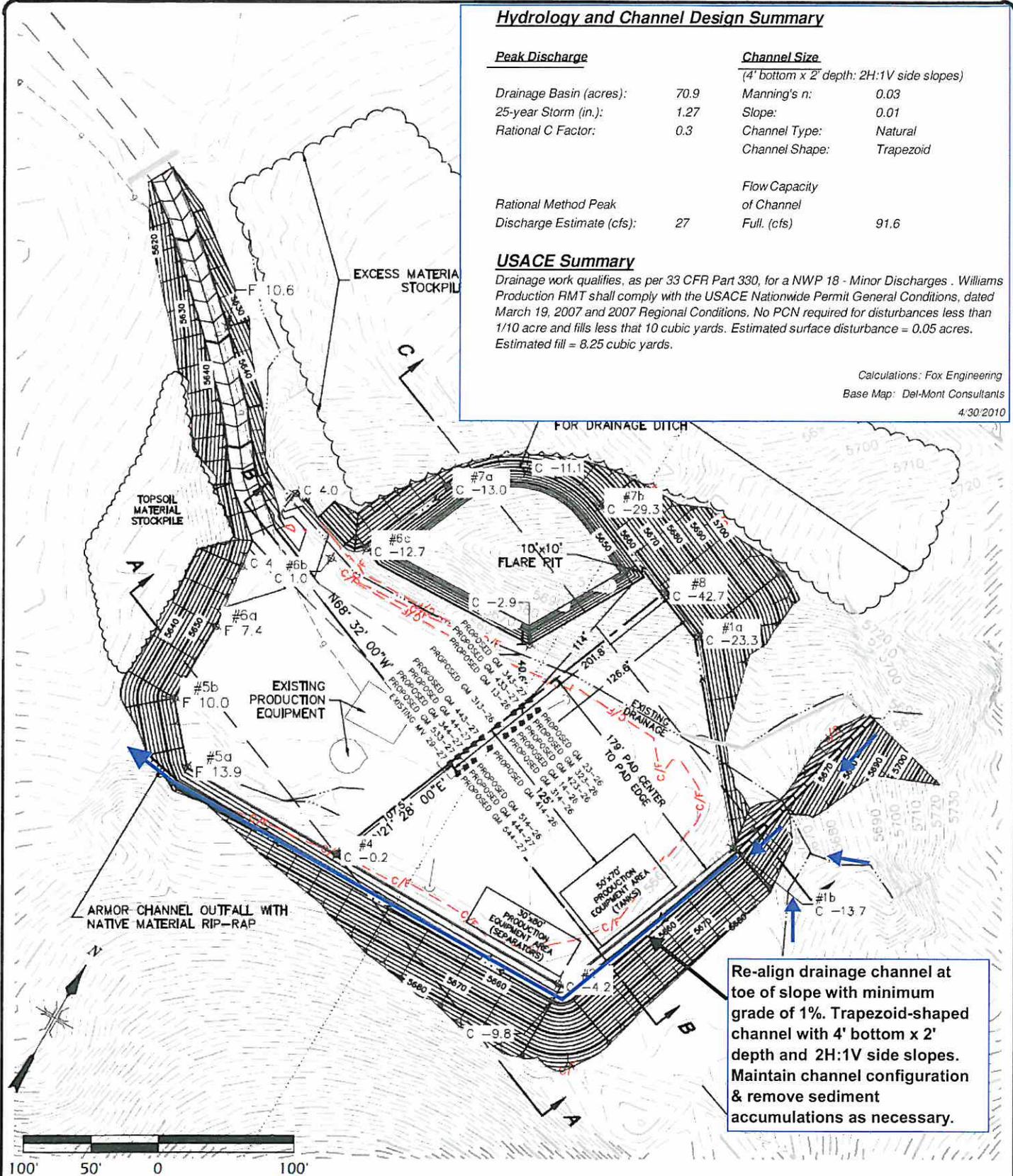
Flow Capacity of Channel

Full (cfs) 91.6

USACE Summary

Drainage work qualifies, as per 33 CFR Part 330, for a NWP 18 - Minor Discharges. Williams Production RMT shall comply with the USACE Nationwide Permit General Conditions, dated March 19, 2007 and 2007 Regional Conditions. No PCN required for disturbances less than 1/10 acre and fills less than 10 cubic yards. Estimated surface disturbance = 0.05 acres. Estimated fill = 8.25 cubic yards.

Calculations: Fox Engineering
 Base Map: Del-Mont Consultants
 4/30/2010



Re-align drainage channel at toe of slope with minimum grade of 1%. Trapezoid-shaped channel with 4' bottom x 2' depth and 2H:1V side slopes. Maintain channel configuration & remove sediment accumulations as necessary.

DEL-MONT CONSULTANTS IS PROVIDING GRADING DESIGN FOR THIS PROJECT THAT PROVIDES DIMENSIONS AND VOLUME INFORMATION FOR CONSTRUCTION.

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DESIGNED BY:	MGW	SCALE: 1"=100'
CHECKED BY:	KS	FILE NAME: 10030C-MV29-27_PAD-DITE



S26 & S27, T6S, R96W, 6TH P.M.
 CONSTRUCTION LAYOUT
 WELL PAD MV 29-27
 GARFIELD COUNTY, CO
 WILLIAMS PRODUCTION, RMT

DMC JOB NO:	10030
DATE ISSUED:	2010-04-26
DATE SURVEYED:	2008-11-17
PLAT:	2 of 9