

WESTBAY WELL SUMMARY

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Location ID: 600-E Field Representative(s): Giles, Pearson, Egan, Canavan

Purpose of Well: Replacement well for 600-C-437

Date Started: 09/23/97 Date Completed: 10/10/97

Northing: 224792.43 Easting: 413630.40

Brass Cap: 4746.17 Outer Casing: 4747.83 Inner Casing: 4747.89

Drilling Method: mud/air-foam rotary Drilling Contractor: Stewart Bros. Drilling

Driller: V. Amaro

Total Depth Borehole: 701' (Logged TD: 703') Total Depth Well Casing: 690'

Total Depth Surface Casing: 150'

Diameter Borehole: 9 7/8" (0'-151'); 4 1/2" (151'-701')

Diameter Well Casing: 1.5" Westbay PVC Diameter Surface Casing: 6"

Sampling zones: 260' to 290'

Sampling zones: 430' to 450'

Sampling zones: 525' to 545'

Sampling zones: 665' to 680'

Water First Detected: not detected while drilling Water Level Open Borehole: 273.50' BGL

Water Level Cased Borehole: see pressure profiles

Estimated Water Use: 30,400 gal.

Well Casing:

1.5 in x 2 ft SCD 80 PVC: 1 = 2 ft

1.5 in x 5 ft SCD 80 PVC: 4 = 20 ft

1.5 in x 10 ft SCD 80 PVC: 63 = 630 ft

Total SCD 80 PVC pipe: 652 ft

5 ft MP packer: 8 = 40 ft

Regular coupling: 64

Pumping port coupling: 4

Measurement port coupling: 8

End cap: 1

Casing Clamp: 0

Magnetic collar: 4

Well Completion: No materials used for Westbay completion

100# bags 16/40 sand:	bags
100# bags 10/20 sand:	bags
100# bags 8/14 sand:	bags
100# bags 8/20 sand:	bags
94# bags cement:	bags
5 gal. buckets bentonite:	buckets
50# bentonite powder:	bags
Benseal:	bags

Surface Casing:

94# bags cement:	40	bags
50# bags bentonite powder:		bags

Pertinent Field Notes: For more details, refer to Field Notebook #4, pgs. 12 - 44.

09/23/97 Mobilized to site and prepared to drill. - P. Egan.

09/24/97 Drilled 8 3/4" hole to 151 ft. Andesite bedrock at 140'. - J. Pearson.

09/25/97 Attempted to install 6" casing in 8 3/4" borehole, but couldn't get past obstruction at \approx 30'. Pulled casing, reamed hole to 9 7/8". Installed 160' x 6" diam. surface casing, but could not wash to bottom to trim at top. Drillers break for 4 days. - P. Egan.

09/30/97 Grout 150' surface casing. Prepare for drilling with air-foam. - P. Egan.

10/01/97 Drilled with air-foam and 4 1/2" air hammer 151'-360'. Volcanic (andesite source) litharenite 200' \approx 310'. Competant dark gray andesite. No water noted while drilling. - M. Canavan.

10/02/97 Drilled with 4 1/2" hammer, 360'-560', through andesite. Little water produced based on observations of drilling fluid discharge. - P. Egan.

10/03/97 Drilled 560'-700' (TD). Air lifted for 3 hrs. at 3.9 gpm. 702 gallons developed. - M. Russell.

10/05/97 Continued air lifting for development of open borehole in preparation for WB casing installation. - M. Russell, J. Pearson.

10/05/97 Southwest Surveys ran full suite of geophysical logs. - J. Pearson.

10/06/97 Designed WB well from geophysical log-data. Conducted recovery test and determined recovery rate to be \approx 3.9 gpm. Continued air lifting for development. - G. Giles.

10/07/97 Set up for WB installation. - P. Egan.

10/08/97 Readjusted well design; zones #1 and #4 adjusted for lower than expected water table and borehole sloughing, respectively. Installed 692' of WB casing. - M. Canavan, M. Russell.

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- 10/09/97 Inflated packers #1 (bottom) - #6. Packer #5 (450'-455') exhibited unusual inflation pressure. Watch pressure profile data for #5. - P. Egan.
- 10/10/97 Inflated remaining 2 packers. Cleaned up site. - P. Egan.