

Groundwater flows
southeast towards
Black Creek

Pump ID	Average pumping rate (gpm)
PW-46	24.2
PW-47	23.9
PW-43	18.5
P-401/402	175

Notes: Contours represent hydraulic head in the deeper section of the water bearing unit, where purge wells are active, and where the majority of impacted groundwater exists (approximately 550 - 590 ft amsl).

Below the creek at this elevation the hydraulic head is different than the elevation of the stream, due to the nature of the fluvial plane geology and the anthropogenic effects of groundwater extraction. Contours were generated by combination of mathematical solution and geological interpretation.

Active purging wells were not used in the contouring therefore the cone of depression caused by each wells is not demonstrated. Water levels in the purge wells are approximately 0.8 to 1.5 feet lower than the surface represented herein.

PRELIMINARY DRAFT -
FOR DISCUSSION PURPOSES ONLY

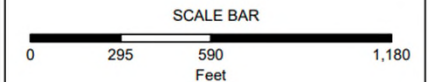
COMPARISON OF GROUNDWATER EXTRACTION RATES
AND POTENTIAL GROUNDWATER DISCHARGE
WITHOUT EXTRACTION

Groundwater treatment flow rate (September, 2008)	370,000 gal/day
Potential groundwater flow to creek without extraction (September, 2008)	278,000 gal/day
Groundwater treatment flow rate exceeds potential flow rate, therefore recovery system prevents groundwater discharge to the creek.	

Legend

- Water Level Observations
- Pumping_wells
- Big Black Creek
- Groundwater Contours (1ft interval)
- Impermeable Barrier Wall
- Weir
- Lagoon
- Wetlands
- Groundwater flow direction

Surface water flows
southwest



BOFORS NOBEL
SEPTEMBER 2008 GROUNDWATER
ELEVATION CONTOUR MAP
DEEP GROUNDWATER

PARSONS

