

**Hylebos Waterway Fish Injury Studies
Individual Data and Quality Assurance Results
CASE NARRATIVE**

**Toxicopathic Injury in Flatfish
DNA Adducts**

DNA Adducts

Performance Evaluation

The PPL performance standard met ³²P-labeling criteria.

Calibration

There were no deviations from the QA/SOP calibration criteria. All the calibration data that were used to quantitate DNA adducts met the initial and continuing criteria detailed in the “Commencement Bay Quality Assurance Plan” (QA Plan).

Method Blank

The acceptance criteria were met for the method blank.

Sample Duplicates

Two samples were processed and analyzed in duplicate. The relative percent differences (RPD) for all analytes were less than 50%.

Commentary on Samples:

Missing sample analyses:

Several samples (n=6) were lost because sufficient DNA could not be extracted. In addition, nine samples were lost because the chromatograms were not quantifiable.

Values reported that are less than 10 nmol/mol:

If the storage phosphor images of the radioactivity distribution on the chromatograms, are sufficiently clean and distinct, then values less than 10 nmols DNA adducts/mol DNA for the large diagonal radioactive zone containing adducts derived from polycyclic aromatic compounds can be obtained. For the chromatography standards, the limit of detection for a single, well resolved spot is 0.1 nmol DNA adduct/mol DNA.

Toxicopathic Injury in Flatfish
DNA Adducts

ppl#	composite#	site	species	nmol DNA adducts/mol DNA bases
150-01	C1	upper turning basin	English sole	NDR*
150-02	C2	upper turning basin	English sole	101
150-03	C3	upper turning basin	English sole	NDR
150-04	C4	upper turning basin	English sole	NDR
150-05	C5	upper turning basin	English sole	NDR
150-06	C6	upper turning basin	English sole	128
150-07	C1	lower turning basin	English sole	88
150-08	C2	lower turning basin	English sole	104
150-09	C3	lower turning basin	English sole	107
150-10	C4	lower turning basin	English sole	53
150-11	C5	lower turning basin	English sole	68
150-12a	C6	lower turning basin	English sole	78
150-12b	replicate	"	"	99
150-13	C1	11th St. Bridge	English sole	25
150-14	C2	11th St. Bridge	English sole	NDR
150-15	C3	11th St. Bridge	English sole	NDR
150-16	C4	11th St. Bridge	English sole	31
150-17	C5	11th St. Bridge	English sole	33
150-18	C6	11th St. Bridge	English sole	CNQ**
150-19	C1	11th St. Bridge	rock sole	22
150-20	C2	11th St. Bridge	rock sole	21
150-21	C3	11th St. Bridge	rock sole	25
150-22	C4	11th St. Bridge	rock sole	10
150-23	C5	11th St. Bridge	rock sole	CNQ
150-24	C6	11th St. Bridge	rock sole	18
150-25	C1	Colvos Passage	rock sole	CNQ
150-26	C2	Colvos Passage	rock sole	CNQ
150-27	C3	Colvos Passage	rock sole	<4
150-28	C4	Colvos Passage	rock sole	CNQ
150-29a	C5	Colvos Passage	rock sole	<4
150-29b	replicate	"	"	<4
150-30	C6	Colvos Passage	rock sole	CNQ
150-31	C1	Colvos Passage	English sole	<4
150-32	C2	Colvos Passage	English sole	4
150-33	C3	Colvos Passage	English sole	CNQ
150-34	C4	Colvos Passage	English sole	CNQ
150-35	C5	Colvos Passage	English sole	CNQ
150-36	C6	Colvos Passage	English sole	<4
salmon sperm DNA blank				1
Benzo[a]pyrene-DNA adduct standard 10 uL				2.20
Benzo[a]pyrene-DNA adduct standard 10 uL				2.11
Benzo[a]pyrene-DNA adduct standard 5 uL				0.99
Benzo[a]pyrene-DNA adduct standard 5 uL				0.99
*NDR = No DNA recovered				
**CNQ = chromatogram not quantifiable				