

Appendix A

Sampling Field Logs and Data Sheets

CHAIN OF CUSTODY RECORD

PACIFIC ECORISK

2250 Cordelia Rd
 Fairfield, CA 94534
 Ph: (707) 207-7760
 Fax: (707) 207-7916
 www.pacificecorisk.com

RESULTS TO:

Same

BILL TO:

Same

Attn:

Jeff Cotsifas

Attn:

Phone:

Phone:

Email:

Email:

PROJECT:

Hercules Pipeline

ANALYSES REQUESTED

REMARKS

| SAMPLE IDENTIFICATION | DATE | TIME | SAMPLE MATRIX | GRAB/COMP. | # CONTAINERS/TYPE | ANALYSES REQUESTED | | | | | | | | | | REMARKS | | |
|-----------------------|----------------|-------------|---------------|------------|-------------------|-------------------------------------|-------------------------------------|--|--|--|--|--|--|--|--|---------|--|--|
| | | | | | | Seal Chain | Seal Top | | | | | | | | | | | |
| <i>HP-06</i> | <i>3/25/13</i> | <i>1620</i> | <i>Seal</i> | <i>G</i> | <i>1 Poly Bag</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | |
| <i>HP-07</i> | <i>3/25/13</i> | <i>0950</i> | <i>Seal</i> | <i>G</i> | <i>1 Poly Bag</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | |
| <i>HP-08</i> | <i>3/25/13</i> | <i>0845</i> | <i>Seal</i> | <i>G</i> | <i>1 Poly Bag</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | |
| | | | | | <i>1</i> | | | | | | | | | | | | | |
| | | | | | <i>1</i> | | | | | | | | | | | | | |
| | | | | | <i>1</i> | | | | | | | | | | | | | |
| | | | | | <i>1</i> | | | | | | | | | | | | | |

METHOD OF SHIPMENT: FedEx: _____ UPS: _____ HAND: OTHER: _____

COMMENTS:

CODES:

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | PAGE # |
|------------------------------|----------------|-------------|--------------------------|----------------|-------------|---------------|
| <i>[Signature]</i> | <i>3/25/13</i> | <i>1200</i> | <i>[Signature]</i> | <i>3/25/13</i> | <i>1200</i> | <i>1 OF 1</i> |

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ANALYSES REQUESTED

REMARKS

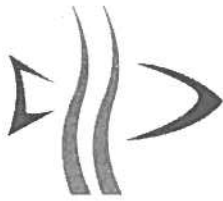
| SAMPLE IDENTIFICATION | DATE | TIME | SAMPLE MATRIX | GRAB/COMP. | # CONTAINERS/TYPE | ANALYSES REQUESTED | | | | | | | | | | REMARKS | | |
|-----------------------|---------|------|---------------|------------|-------------------|--------------------|----------|--|--|--|--|--|--|--|--|---------|--|--|
| | | | | | | Seal Clean | Seal Tox | | | | | | | | | | | |
| HP-01 | 3/28/13 | 1200 | Seal | G | 1 1 Poly Bag | ✓ | ✓ | | | | | | | | | | | |
| HP-02 | 3/28/13 | 1130 | Seal | G | 1 1 Poly Bag | ✓ | ✓ | | | | | | | | | | | |
| HP-03 | 3/28/13 | 1040 | Seal | G | 1 1 Poly Bag | ✓ | ✓ | | | | | | | | | | | |
| HP-04 | 3/28/13 | 1015 | Seal | G | 1 1 Poly Bag | ✓ | ✓ | | | | | | | | | | | |
| HP-05 | 3/28/13 | 0945 | Seal | G | 1 1 Poly Bag | ✓ | ✓ | | | | | | | | | | | |
| HP-0 - Site H20 | 3/28/13 | 1150 | H2O | G | 2 1 Cubi | | ✓ | | | | | | | | | | | |
| | | | | | 1 | | | | | | | | | | | | | |
| | | | | | 1 | | | | | | | | | | | | | |

 METHOD OF SHIPMENT: FedEx: _____ UPS: _____ HAND: OTHER: _____

COMMENTS:

CODES:

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | PAGE # |
|------------------------------|---------|------|--------------------------|---------|------|--------|
| <i>A. Spitzer</i> | 3/28/13 | 1430 | <i>Jeff Cotsifas</i> | 3/28/13 | 1430 | 1 OF 1 |



Pacific EcoRisk
Environmental Consulting and Testing

Pacific EcoRisk
2250 Cordelia Road
Fairfield, CA 94534
Phone: (707) 207-7760
Fax: (707) 207-7916

Sediment Core Collection Form

Station ID: HP-01 Date: 3/28/2013

Project Name: Hercules Pipeline Project No.: 20792

Coordinates:
Lat/Northing: 38.03487⁹ Long/Easting: 122.27506⁰

Vertical Datum: MLLW MLW Other:

Depth Measurement: Leadline Sounder

Project Depth: 3.0' Overdredge: -

| | Attempt 1 | Attempt 2 |
|--|---------------------|-----------|
| Time: | 12:00 | |
| (A) Measured Water Depth | 4.4' | / |
| (B) Tide Height | 3.5 3.5' | |
| (C) Mudline Elevation (A-B=C) | 0.9' | |
| (D) Calculated Core Length (PD+OD-C=D) | 3.0' | |
| Estimated Penetration | 3.0' | |
| Description of Core Drive | Smooth | |
| Refusal Encountered? | No | |
| Total Core Length Recovered | 2.6' | |

Core Characteristics

| | | |
|-------------------------|---|---|
| Sediment Type | cobble, gravel, sand C M F, silt clay, organic matter | cobble, gravel, sand C M F, silt clay, organic matter |
| Sediment Color | gray, black, brown, brown surface, olivine | gray, black, brown, brown surface, olivine |
| Sediment Odor | None, slight, mod, strong H ₂ S, petroleum, septic | None, slight, mod, strong H ₂ S, petroleum, septic |
| Any Layering Homogenous | Layering | |

Comments: EPE: 6.6'
4 Cores Collected
- Top 6" were medium sand. Remainder of core was fine gray sediment.

Recorded by: [Signature]



Sediment Core Collection Form

Station ID: HP-02 Date: 3/28/13
 Project Name: Hercules Pipeline Project No.: 20792
 Coordinates:
 Lat/Northing: 38.03538^o Long/Easting: 122.27540^o
 Vertical Datum: (MLLW) MLW Other:
 Depth Measurement: Sounder (Leadline)
 Project Depth: 3.0' b.s.s. Overdredge: -

| | Attempt 1 | Attempt 2 |
|--|-----------------|-----------|
| Time: | <u>10:11:30</u> | |
| (A) Measured Water Depth | <u>5.0'</u> | / |
| (B) Tide Height | <u>2.7'</u> | |
| (C) Mudline Elevation (A-B=C) | <u>2.3'</u> | |
| (D) Calculated Core Length (PD+OD-C=D) | <u>3.0'</u> | |
| Estimated Penetration | <u>3.0'</u> | |
| Description of Core Drive | <u>Smooth</u> | |
| Refusal Encountered? | <u>No</u> | |
| Total Core Length Recovered | <u>2.8'</u> | |

Core Characteristics

| | | |
|---|--|--|
| Sediment Type | <u>cobble, gravel, sand C M F,</u> <u>silt clay, organic matter</u> | <u>cobble, gravel, sand C M F,</u> <u>silt clay, organic matter</u> |
| Sediment Color | <u>gray, black, brown,</u> <u>brown surface, olivine</u> | <u>gray, black, brown,</u> <u>brown surface, olivine</u> |
| Sediment Odor | <u>None, slight, mod, strong</u> <u>H₂S, petroleum, septic</u> | <u>None, slight, mod, strong</u> <u>H₂S, petroleum, septic</u> |
| Any Layering Homogenous | <u>Homogenous</u> | |
| Comments: <u>EPE: 7.3'</u> <u>4 Cores Collected</u> <u>Core homogenous: fine to gray fine mixed w/ fine sand.</u> | | |

Recorded by: DG



Sediment Core Collection Form

Station ID: HP-03 Date: 3/28/13

Project Name: Hercules Pipeline Project No.: 20792

Coordinates:
Lat/Northing: 38.03581° Long/Easting: 122.27599°

Vertical Datum: MLLW MLW Other: _____

Depth Measurement: Sounder Leadline

Project Depth: 3.0' bss Overdredge: —

| | Attempt 1 | Attempt 2 |
|--|---------------|-----------|
| Time: | <u>10:40</u> | |
| (A) Measured Water Depth | <u>5.3</u> | / |
| (B) Tide Height | <u>1.5</u> | |
| (C) Mudline Elevation (A-B=C) | <u>3.8'</u> | |
| (D) Calculated Core Length (PD+OD-C=D) | <u>3.0'</u> | |
| Estimated Penetration | <u>3.0'</u> | |
| Description of Core Drive | <u>Smooth</u> | |
| Refusal Encountered? | <u>No</u> | |
| Total Core Length Recovered | <u>2.5'</u> | |

Core Characteristics

| | | |
|-------------------------|--|--|
| Sediment Type | <u>cobble, gravel, sand C M F, silt clay, organic matter</u> | cobble, gravel, sand C M F, silt clay, organic matter |
| Sediment Color | <u>gray, black, brown, brown surface, olivine</u> | gray, black, brown, brown surface, olivine |
| Sediment Odor | <u>None, slight, mod, strong H₂S, petroleum, septic</u> | None, slight, mod, strong H₂S, petroleum, septic |
| Any Layering Homogenous | <u>Homogenous</u> | |

Comments: EPE: 9.9'
4 cores collected
Cores are homogenous: thin brown surface w/ the remainder of core consisting of fine and silt sand

Recorded by: _____



Sediment Core Collection Form

Station ID: HP-04 Date: 3/28/13

Project Name: Hercules Pipeline Project No.: 20792

Coordinates:
Lat/Northing: 38.03636^o Long/Easting: 122.27641^o

Vertical Datum: MLLW MLW Other: _____

Depth Measurement: Leadline Sounder _____

Project Depth: 3.0' b.s.s. Overdredge: -

| | Attempt 1 | Attempt 2 |
|--|---------------|-----------|
| Time: | <u>10:15</u> | |
| (A) Measured Water Depth | <u>7.3'</u> | / |
| (B) Tide Height | <u>1.0'</u> | |
| (C) Mudline Elevation (A-B=C) | <u>6.3'</u> | |
| (D) Calculated Core Length (PD+OD-C=D) | <u>3.0'</u> | |
| Estimated Penetration | <u>3.0'</u> | |
| Description of Core Drive | <u>Smooth</u> | |
| Refusal Encountered? | <u>N/D</u> | |
| Total Core Length Recovered | <u>3.0'</u> | |

Core Characteristics

| | | |
|----------------------------|--|---|
| Sediment Type | <u>cobble, gravel, sand C M F, silt clay, organic matter</u> | / |
| Sediment Color | <u>gray, black, brown, brown surface, olivine</u> | |
| Sediment Odor | <u>None, slight, mod, strong H₂S, petroleum, septic</u> | |
| Any Layering Homogenous | <u>Homogenous</u> | |
| Comments: <u>EPE: 6.9'</u> | | |

4 Cores Collected
Core homogenous: Thin brown surface remainder of core was uniform fine with fine sand matrix.

Recorded by: [Signature]



Sediment Core Collection Form

Station ID: HP-05 Date: 3/28/13

Project Name: Hercules Pipeline Project No.: 20792

Coordinates:
Lat/Northing: 38° 03' 74" Long/Easting: -122° 27' 46"

Vertical Datum: MLLW MLW Other: _____

Depth Measurement: Sounder Leadline

Project Depth: 30' Overdredge: —

| | Attempt 1 | Attempt 2 |
|--|---------------|-----------|
| Time: | <u>0945</u> | |
| (A) Measured Water Depth | <u>7.0'</u> | / |
| (B) Tide Height | <u>0.6'</u> | |
| (C) Mudline Elevation (A-B=C) | <u>6.4'</u> | |
| (D) Calculated Core Length (PD+OD-C=D) | <u>3.0'</u> | |
| Estimated Penetration | <u>3.0'</u> | |
| Description of Core Drive | <u>Smooth</u> | |
| Refusal Encountered? | <u>No</u> | |
| Total Core Length Recovered | <u>2.5'</u> | |

Core Characteristics

| | | |
|-------------------------|---|---|
| Sediment Type | cobble, gravel, <u>sand</u> C M F, silt clay, organic matter | cobble, gravel, sand C M F, silt clay, organic matter |
| Sediment Color | <u>gray</u> , black, brown, brown surface, olivine | gray, black, brown, brown surface, olivine |
| Sediment Odor | <u>None</u> slight, mod, strong H ₂ S, petroleum, septic | None, slight, mod, strong H ₂ S, petroleum, septic |
| Any Layering Homogenous | <u>Homogenous</u> | |

Comments: EPE: 8.6'
4 Cores Collected

Recorded by: [Signature]



Sediment Core Collection Form

Station ID: HP-06 Date: 3/25/13

Project Name: Hercules Pipeline Project No.: 20792

Coordinates:
Lat/Northing: 38,03740° Long/Easting: 122.27750°

Vertical Datum: MLLW MLW Other: _____

Depth Measurement: Sounder Leadline

Project Depth: 0.5' Overdredge: —

| | Attempt 1 | Attempt 2 |
|--|------------|-----------|
| Time: | 10:20 | |
| (A) Measured Water Depth | 12.6' | / |
| (B) Tide Height | 4.8' | |
| (C) Mudline Elevation (A-B=C) | 7.8' | |
| (D) Calculated Core Length (PD+OD-C=D) | 0.5' | |
| Estimated Penetration | 0.5' | |
| Description of Core Drive | smooth | |
| Refusal Encountered? | No | |
| Total Core Length Recovered | Homogenous | |

Core Characteristics

| | | |
|-------------------------|---|---|
| Sediment Type | cobble, gravel, sand C M F, silt clay, organic matter | cobble, gravel, sand C M F, silt clay, organic matter |
| Sediment Color | gray, black, brown, brown surface, olivine | gray, black, brown, brown surface, olivine |
| Sediment Odor | None, slight, mod, strong H ₂ S, petroleum, septic | None, slight, mod, strong H ₂ S, petroleum, septic |
| Any Layering Homogenous | Homogenous | / |

Comments: EPE: 9.6'
Some shell hard presence in Sample.
Petite ponar used to collect samples

Recorded by: DG



Sediment Core Collection Form

Station ID: HP-07 Date: 3/25/13

Project Name: Hercules Pipeline Project No.: 20792

Coordinates:
Lat/Northing: 38.03797° Long/Easting: 122.27819°

Vertical Datum: MLLW MLW Other: _____

Depth Measurement: Sounder Leadline

Project Depth: 0.5" Overdredge: —

| | Attempt 1 | Attempt 2 |
|--|---------------|-----------|
| Time: | <u>0950</u> | |
| (A) Measured Water Depth | <u>12.8'</u> | / |
| (B) Tide Height | <u>4.3'</u> | / |
| (C) Mudline Elevation (A-B=C) | <u>8.5'</u> | / |
| (D) Calculated Core Length (PD+OD-C=D) | <u>0.5'</u> | / |
| Estimated Penetration | <u>0.5'</u> | / |
| Description of Core Drive | <u>Smooth</u> | / |
| Refusal Encountered? | <u>No</u> | / |
| Total Core Length Recovered | <u>0.5'</u> | / |

Core Characteristics

| | | |
|-------------------------|--|--|
| Sediment Type | cobble, gravel, <u>and C M F</u> <u>silt clay</u> organic matter | cobble, gravel, sand C M F, silt clay, organic matter |
| Sediment Color | <u>gray, black, brown,</u> <u>brown surface, olivine</u> | gray, black, brown, brown surface, olivine |
| Sediment Odor | <u>None, slight, mod, strong</u> <u>H₂S, petroleum, septic</u> | None, slight, mod, strong H ₂ S, petroleum, septic |
| Any Layering Homogenous | <u>Homogenous</u> | / |

Comments: EPE: 12'
Some shell frags present
Used a petite pump to collect sample

Recorded by: RP



Sediment Core Collection Form

Station ID: HP-08 Date: 3/25/13

Project Name: Hercules Pipeline Project No.: 20792

Coordinates:
Lat/Northing: 38.03861° Long/Easting: 122.27881°

Vertical Datum: MLLW MLW Other: _____

Depth Measurement: Sounder Leadline

Project Depth: 0.5' Overdredge: —

| | Attempt 1 | Attempt 2 |
|--|---------------|-----------|
| Time: | <u>0845</u> | |
| (A) Measured Water Depth | <u>11.5'</u> | / |
| (B) Tide Height | <u>2.8'</u> | |
| (C) Mudline Elevation (A-B=C) | <u>8.7'</u> | |
| (D) Calculated Core Length (PD+OD-C=D) | <u>0.5'</u> | |
| Estimated Penetration | <u>0.5'</u> | |
| Description of Core Drive | <u>Smooth</u> | |
| Refusal Encountered? | <u>No</u> | |
| Total Core Length Recovered | <u>0.5'</u> | |

Core Characteristics

| | | |
|-------------------------|---|---|
| Sediment Type | cobble, gravel, sand C M F, <u>silt clay</u> , organic matter | cobble, gravel, sand C M F, silt clay, organic matter |
| Sediment Color | <u>gray</u> , black, brown, brown surface, olivine | gray, black, brown, brown surface, olivine |
| Sediment Odor | <u>None</u> , slight, mod, strong H ₂ S, petroleum, septic | None, slight, mod, strong H ₂ S, petroleum, septic |
| Any Layering Homogenous | <u>Homogenous</u> | / |

Comments: EPE: 6.4' Some shell hash present in sediment.
Used petite ponar to collect sample.

Recorded by: DB