

**HIP - \_\_122\_\_**

**GENERAL  
CORRESPONDENCE**

**YEAR(S):  
2013 to Present**

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary-Designate

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey, Division Director**  
Oil Conservation Division



August 29, 2013

Ms. Shiver Nolan  
Enterprise Products Operating LLC  
P.O. Box 4324  
Houston, Texas 77210

**Re: Hydrostatic Test Discharge Permit**  
**Permit: HIP-122**  
**Enterprise Products Operating, LLC**  
**Western Expansion Pipeline III, Segment 3**  
**Locations: Unit N of Section 27, Township 10 North, Range 8 East, NMPM,**  
**Santa Fe County, New Mexico**

Dear Ms. Nolan:

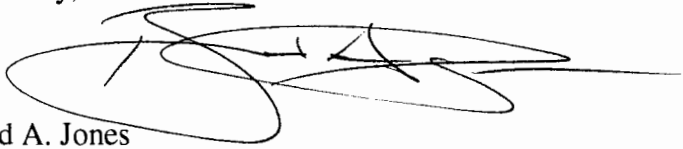
The New Mexico Oil Conservation Division (OCD) has received Enterprise Products Operating LLC's (Enterprise) notice of intent, dated August 29, 2013, for authorization to discharge approximately 850,000 gallons of wastewater generated from a hydrostatic test of a new 16-inch to 20-inch diameter natural gas gathering system transmission pipeline approximately 30.4 miles (179,400 feet) long, located approximately 4 miles northwest of Moriarty, New Mexico. The proposed discharge/collection/retention location is within Enterprise's pipeline easement right-of-way and the discharge is proposed to flow onto approximately 90,625 square feet of private property north and adjacent to Enterprise's pipeline easement right-of-way, both located within Unit N of Section 27, Township 10 North, Range 8 East, NMPM, Santa Fe County, New Mexico. The submittal provided the required information in order to deem the application "administratively" complete. OCD approves the Mountain View Telegraph as the newspaper of general circulation for the published notice and the discharge and/or collection location (within Enterprise's pipeline easement right-of-way) and the post office in Moriarty, New Mexico as proposed posting locations.

Therefore, the July 2006 New Mexico Water Quality Control Commission (WQCC) regulations notice requirements (20.6.2.3108 NMAC) must be satisfied and demonstrated to the OCD. The hydrostatic test discharge event shall not be initiated until Enterprise's and OCD's notice periods pass, the permit is issued, and the additional permit fee is paid, if applicable.

Enterprise Products Operating LLC  
Permit: HIP-122  
August 29, 2013  
Page 2 of 2

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', with a long horizontal line extending to the right.

Brad A. Jones  
Environmental Engineer

BAJ/baj

cc:   OCD District IV Office, Santa Fe  
      Mr. James White, Enterprise Products Operating, LLC, Houston, TX 77210-4324  
      Ms. Runell Seale, Enterprise Products Operating, LLC, Farmington, NM 87401

**ACKNOWLEDGEMENT OF RECEIPT  
OF CHECK/CASH**

I hereby acknowledge receipt of Check No. 689075 dated 7/26/13  
or cash received on 8/29/13 in the amount of \$ 700.00  
from KLEINFELDER WEST, INC.  
for HIP-122

Submitted by: BRAD JONES Date: 8/29/13

Submitted to ASD by: Lupe Sherman Date: 8/30/13

Received in ASD by: \_\_\_\_\_ Date: \_\_\_\_\_

Filing Fee ☒ \_\_\_\_\_ New Facility: \_\_\_\_\_ Renewal: \_\_\_\_\_

Modification \_\_\_\_\_ Other ☒ PERMIT FEE

Organization Code 521.07 Applicable FY 14

To be deposited in the Water Quality Management Fund.

Full Payment \_\_\_\_\_ or Annual Increment \_\_\_\_\_

New Mexico Environment Department Revenue Transmittal

Description	Fund	CES	DFA Org.	DFA Acct.	ED Org.	ED Acct.	Amount
1 CY Reimbursement Project Tax	064	01					1
2 Gross Receipt Tax	064	01		2329	900000	2329134	2
3 Air Quality Title V	092	13		1690	900000	4169134	3
4 PRP Prepayments	248	14		9690	900000	4969014	4
5 Climax Chemical Co.	248	14		9690	900000	4969015	5
6 Circle K Reimbursements	248	14		9690	900000	4969248	6
7 Hazardous Waste Permits	339	27		1690	900000	4169027	7
8 Hazardous Waste Annual Generator Fees	339	27		1690	900000	4169339	8
9 Water Quality - Drinking Water	340	28		1690	900000	4169028	9
10 <input checked="" type="checkbox"/> Water Quality - Oil Conservation Division	341	29		2329	900000	2329029	700.00 10
11 Water Quality - GW Discharge Permit	341	29		1690	900000	4169029	11
12 Air Quality Permits	631	31		1690	900000	4169031	12
13 Payments under Protest	651	33		2919	900000	2919033	13
* 14 Xerox Copies	652	34		2349	900000	2349001	14
15 Ground Water Penalties	652	34		2349	900000	2349002	15
16 Witness Fees	652	34		2349	900000	2349003	16
17 Air Quality Penalties	652	34		2349	900000	2349004	17
18 OSHA Penalties	652	34		2349	900000	2349005	18
19 Prior Year Reimbursement	652	34		2349	900000	2349006	19
20 Surface Water Quality Certification	652	34		2349	900000	2349009	20
21 Jury Duty	652	34		2349	900000	2349012	21
22 CY Reimbursements (i.e.: telephone)	652	34		2349	900000	2349014	22
* 23 UST Owners List	783	24		9690	900000	4969201	23
* 24 Hazardous Waste Notifiers List	783	24		9690	900000	4969202	24
* 25 UST Maps	783	24		9690	900000	4969203	25
* 26 UST Owners Update	783	24		9690	900000	4969205	26
* 28 Hazardous Waste Regulations	783	24		9690	900000	4969207	28
* 29 Radiologic Tech. Regulations	783	24		9690	900000	4969208	29
* 30 Superfund CERCLIS List	783	24		9690	900000	4969211	30
* 31 Solid Waste Permits Fees	783	24		9690	900000	4969213	31
32 Smoking School	783	24		9690	900000	4969214	32
* 33 SWQB - NPS Publications	783	24		9690	900000	4969222	33
* 34 Radiation Licensing Regulations	783	24		9690	900000	4969228	34
* 35 Sale of Equipment	783	24		9690	900000	4969301	35
* 36 Sale of Automobile	783	24		9690	900000	4969302	36
** 37 Lust Recoveries	783	24		9690	900000	4969614	37
** 38 Lust Prepayments	783	24		9690	900000	4969615	38
39 Surface Water Publication	783	24		9690	900000	4969801	39
40 Exxon Reese Drive Ruidoso - CAF	783	24		9690	900000	4969242	40
41 Emerg. Hazardous Waste Penalties NOV	957	32		1640	900000	4164032	41
42 Radiologic Tech. Certification	987	05		1690	900000	4169005	42
44 UST Permit Fees	989	20		1690	900000	4169020	44
45 UST Tank Installers Fees	989	20		1690	900000	4169021	45
46 Food Permit Fees	991	26		1690	900000	4169026	46
43 Other							43

\* Gross Receipt Tax Required \*\* Site Name & Project Code Required

TOTAL: 700.00

Contact Person: GLENN VON GONTEN Phone #: 476-3488 Date: 8/30/13

Received in ASD By: \_\_\_\_\_ Date: \_\_\_\_\_ RT #: \_\_\_\_\_ ST# \_\_\_\_\_

DATE WALK-  
RECEIVED IN MAIL

NAME ON CHECK

DATE OF CHECK/MONEY	CHECK ORDER#
01/01/01	000001
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05/02/01	000123

PROGRAM ACCOUNT	AMOUNT	DATE DEPOSITED	DEPOSITED BY:
CODE	OF CHECK		

8	29	13
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✓	KLEINFELDER WEST, INC
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7/26/13

689075

	\$700.00
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[illegible][illegible][illegible][illegible][illegible]

# REVENUE TRANSMITTAL SHEET

Description	Fund	Dept.	Share Acct	Sub Acct	Amount
Liquid Waste	34000	Z3200	496402		
Water Recreation Facilities	40000	Z8501	496402		
Food Permit Fees	99100	Z2600	496402		
OTHER					



ENTERPRISE PRODUCTS PARTNERS L.P.  
ENTERPRISE PRODUCTS HOLDINGS LLC  
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

2013 AUG 29 A 11:33

August 29, 2013

Hand Delivered

Mr. Brad Jones  
New Mexico Energy, Minerals, and Natural Resources Department  
Oil Conservation Division  
1220 St. Francis Drive  
Santa Fe, NM 87505

Dear Mr. Jones:

**RE: Enterprise Products Operating LLC  
Submittal of Notice of Intent to Discharge Hydrostatic Test Water  
Western Expansion Pipeline III, Segment 3  
Sandoval County, New Mexico**

Enterprise Products Operating LLC (Enterprise) will be constructing Segment 3 of the Western Expansion Pipeline III as an expansion to their natural gas gathering system. Please find enclosed an application for authorization to discharge hydrostatic test water following hydrostatic testing of the new pipeline. The enclosed application includes requested revisions to multiple unofficial drafts that you reviewed. The first draft of this NOI was submitted for review on July 31, 2013.

Because of unforeseen delays in BLM & BIA permitting, we are having to adjust our original schedule of where we are working within our overall project, and as such, this application is now inside the preferred 90-day window, whereas our original schedule would have allowed for a full 90-day review.

Thank you for your assistance with this request. If you have any questions or require additional information, please feel free to call Enterprise's environmental consultant, Ms. Eileen Shannon, (505) 307-0722, or myself at (713) 392-2458

Sincerely,

James G. White  
Sr. Environmental Scientist

cc: Runell Seale, Enterprise  
Shiver Nolan, Enterprise



# DOCUMENT TRANSMITTAL FORM

<b>TO:</b> Mr. Brad Jones EMNRD Oil Conservation Division 1220 St. Francis Drive Santa Fe, NM 87505	<b>PAGE</b>	1	<b>OF</b>	1
	<b>TRANSMITTAL DATE:</b>	08/29/2013		
	<b>TRANSMITTAL DCN:</b>	134288.3-ALB13TS003		
<b>RETURN RESPONSES/COMMENTS TO:</b>		Eileen Shannon		
<b>RETURN RESPONSES/COMMENTS BY:</b>		08/30/2013		

<b>PROJECT NO.:</b>	134288	<b>PROJECT NAME:</b>	Enterprise - WEP III
<b>ACTIVITY/DESCRIPTION:</b>	Hydrostatic Test NOI - WEP III Segment 3		

DOCUMENTS BEING TRANSMITTED				
ITEM	REV.	PAGES	DATE	DESIGNATOR
Submittal of a Notice of Intent	1		08/29/2013	134288.3-ALB13RP003
	--	--	--	--
	--	--	--	--

<b>INSTRUCTIONS/REMARKS</b>  Electronic copy to Jimmy White, Enterprise	<input type="checkbox"/> Mark previous issues "obsolete", "superceded", or "uncontrolled" <input type="checkbox"/> Destroy previous affected material <input type="checkbox"/> Return old material with this record <input checked="" type="checkbox"/> New issue (no previous copies received) <input type="checkbox"/> Replace with revised/new material <input type="checkbox"/> Maintain as controlled copy <input type="checkbox"/> Not Applicable
<b>RECEIPT AND READ ACKNOWLEDGEMENT</b> Please Sign and Return To:  <b>ADMINISTRATIVE SUPERVISOR</b> 9019 WASHINGTON NE, BUILDING A ALBUQUERQUE, NM 87113 FAX: 505.344.1711 OR KKNIGHTS@KLEINFELDER.COM	

<b>CLIENT RECEIPT</b>	<b>PRINT NAME</b>	<b>SIGNATURE</b>	<b>DATE</b>
Complete & Return this page via Fax/Mail/Email			

<b>KLEINFELDER RECEIPT</b>	<b>PRINT NAME</b>	<b>SIGNATURE</b>	<b>DATE</b>
Complete this section upon receipt from client			





RECEIVED

2013 AUG 29 A 11:33

August 29, 2013  
Project No.: 134288

Mr. Brad Jones  
New Mexico Energy, Minerals, and Natural Resources Department  
Oil Conservation Division  
1220 St. Francis Drive  
Santa Fe, NM 87505

**SUBJECT: DRAFT – Submittal of a Notice of Intent to Perform Hydrostatic Test  
WEP III – Segment 3  
Santa Fe County, New Mexico**

Dear Mr. Jones:

On behalf of Enterprise Products Operating LLC (Enterprise), Kleinfelder West, Inc. (Kleinfelder) is submitting this draft Notice of Intent (NOI) for a hydrostatic test to be conducted on Segment 3 of Enterprise's Western Expansion Pipeline III (WEP III).

Kleinfelder has included the required information for the NOI as stated in the "Guidelines for Hydrostatic Test Dewatering" dated January 11, 2007. Attached to this NOI are the following:

- Background Information;
- Notice of Intent Plan;
- Figure 1 – New Enterprise Pipeline Undergoing Hydrostatic Testing Location Map;
- Figure 2 – Discharge Location Detail;
- Figure 3 – Dissipation and Discharge Area;
- Appendix A – Certification of Siting Criteria;
- Appendix B – Water Feature, Water Well Information and Floodplain information;
- Appendix C – Area Mine Information;
- Appendix D – Geology;
- Appendix E – Area Landownership and Permission from landowners;
- Appendix F – Public Notice;
- Appendix G – Electro-Coagulation Process Information; and
- Appendix H – King Well Analytical Data.

A check totaling \$700 made out to the New Mexico Water Quality Management Fund is included with this NOI for the \$100 filing fee and the \$600 permit fee.

Kleinfelder prepared this NOI in a manner consistent with the level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services are provided. The information provided in this document is based on our understanding of the information provided by Enterprise.

Should you have any questions, please feel free to contact Eileen Shannon (Kleinfelder) at 505.344.7373 or Jimmy White (Enterprise) at 713.392.2458.

Respectfully submitted,

**KLEINFELDER WEST, INC.**



Melissa Cote  
Professional

**Reviewed by:**



Eileen L. Shannon, PG  
Project Manager

cc: James White, Enterprise Products Operating LLC, PO Box 4324, Houston, TX 77210

## Background Information

- The U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) requires periodic pressurized tests on all DOT-regulated pipelines and all newly installed pipelines to verify the integrity and safety of pipeline systems. Because the pipeline is part of a natural gas gathering system, waste water generated during hydrostatic testing is classified as RCRA-exempt waste water and does not require management as a RCRA waste or disposal at a RCRA-approved facility;
- The Enterprise Western Expansion Pipeline (WEP) III line is a new, welded, steel pipeline. In Segment 3, most of the pipeline is 16-inch diameter, but some portions of the pipeline are 20-inch in diameter. Segment 3 of the WEP III pipeline is 34.0 miles or 179,400 feet long (Figure 1);
- The pipeline is part of a gathering system that transports natural gas from the Piceance and San Juan Basins to processing facilities located in Hobbs, New Mexico and Houston, Texas;
- The source water for the hydrostatic testing is the King Irrigation Well (King well). The location of the King well, POD number E 00321 S-14, is shown in Figures 1 and 2;
- The section of the pipeline to be tested is located Torrance, Santa Fe, Sandoval, and Bernalillo Counties. Testing will occur on September 25, 2013. The approximate date of discharge to the pipeline ROW is October 5, 2013;
- Per NMAC 20.6.2.3108, a sample of the public notice is included in Appendix F; and
- Per NMAC 20.6.2.3108, public notice will be made in English by the following methods:
  1. A 2 feet by 3 feet in size sign will be posted at the discharge location;
  2. Written notice will be posted at the Moriarty, New Mexico post office;
  3. Written notice of the discharge by mail to all owners of record for properties adjacent to where the discharge site is located;
  4. The notice will be sent by certified mail, return receipt requested, to the owner of the discharge site; and
  5. A synopsis of the notice will be published in a display ad at least three inches by four inches in size in *The Mountain View Telegraph*. Public notice is published every Thursday. The space for the ad must be reserved by Monday at noon, and the text is required by Tuesday afternoon for publication on following Thursday.

## Notice of Intent Plan

On behalf of Enterprise, Kleinfelder is submitting this NOI plan as outlined in NMOCD Guidance document, "Guidelines for Hydrostatic Test Dewatering," (revised January 11, 2007). The NOI plan includes the following items:

**Item a. Name and address of the proposed discharger:**

**Legally Responsible Party**

Mr. Leonard W. Mallett, Group Sr. VP, Engineering  
POC: Ms. Shiver Nolan, Sr. Compliance Administrator  
P.O. Box 4324  
Houston, Texas 77210  
713.381.6595

**Local Representative**

Ms. Runell Seale  
Enterprise Products Operating LLC  
614 Reilly Ave.  
Farmington, NM 87401  
505.599.2124

**Item b. Location of the discharge, including a street address, if available, and sufficient information to locate the facility with respect to surrounding landmarks:**

Water from the hydrostatic testing will be discharged at the lower-central portion of WEP III Segment 3 near MP 241.5 in Santa Fe County. The discharge area will occur:

- in the pipeline ROW in an area approximately 125 feet wide by 310 to 520 feet long (approximately 49,120 square feet); and
- in the adjacent property north of the ROW in an area approximately 90,625 square feet in size. Landowner permission to discharge is included in Appendix E.

The location of the pipeline to be hydrostatically tested and the discharge location are shown on Figures 1 and 2.

The location of the hydrostatic discharge area is approximately 4 miles northwest of Moriarty, New Mexico. Directions to the discharge site from Moriarty, New Mexico are:

- From the intersection of NM-41 and NM-333 E;
- Head north on NM-41 for 0.4 miles;
- Turn east onto Abraham's/I-40 Frontage Rd for 1.6 miles;
- Continue to north on Country Rd A 106/ Green Rd for 1.7 miles;
- Continue onto Country Rd 21/ King Farm Rd for 1 mile;
- Turn left onto an unnamed road and continue for 0.5 mile;
- The discharge area will be on the right.

The approximate coordinates for the discharge area location are: Latitude 35.055273; Longitude -106.080531.

**Item c. Legal description of the discharge location:**

The discharge location is located:

- In the SE/4; SW/4; Section 27, T10N, R8E (Figure 1).
- The latitude and longitude coordinates are included in *Item b*.

**Item d. Maps (site-specific and regional) indicating the location of the pipelines to be tested:**

- Figure 1 – Regional map showing topography, the pipeline section undergoing testing, and the hydrostatic test water discharge location.
- Figure 2 – Site-specific map showing the hydrostatic test water discharge area.

**Item e. A demonstration of compliance to the following siting criteria or justification for any exceptions:**

Shapefiles were downloaded from various electronic sources and were included in a Geographic Information System (GIS) database for preparation of this NOI. The maps generated from this database were reviewed between July 3 and July 5, 2013. Detailed references for the various shape files are included in the Reference section. Sources used for preparation of the maps in this NOI are included on the individual figures.

- i. Within 200 feet of a watercourse, lakebed, sinkhole, or playa lake;

No watercourses; lakebeds, sinkholes, or playa lakes were observed within 200 feet of the discharge area during the site visit (Appendix A). A search of watercourses, lakebeds, sinkholes and playa lakes in the vicinity of the discharge area was completed by reviewing a topographic map and using the GIS database. None were indicated during the review. A copy of the topographic map is included in Appendix B, Figure B-1.

- ii. Within an existing wellhead protection area or 100-year floodplain;

No springs were identified on the topographic map within 1,000 feet of the discharge area (Figure B-1, Appendix B) and no springs were observed during the site inspection (Appendix A).

The New Mexico Office of the State Engineer (OSE) and GoTech websites were checked for water supply wells located in the vicinity of the site and two were found near the site:

- Well E 00308 S-3, plots approximately 700 feet northwest of the discharge area (Figure B-2 in Appendix B). This well was not found during the site visit. When researched on the OSE website, no data is available for this well (no information on the point of diversion summary sheet, no well details, and no depth to water information). No water quality data was for this well was found on the GoTech website. It is assumed that this well is misplotted.
- Well E 00308 EXPL-2, plots approximately 1,000 feet northwest of the discharge area (Figure B-2 in Appendix B). When researched during the site visit, its actual location is in the center of the irrigation pivot, located approximately 1,001 feet north of the northern edge of the discharge area

(Figure 2). No groundwater elevation or groundwater quality was available for this well on the OSE website or on the GoTech website.

According to the Federal Emergency Management Administration DFIRM Panel 35049C1025D map, the discharge area is not located within a 100-year floodplain. The discharge and surrounding areas are located in Zone X. Figure B-3 (Appendix B) illustrates the above findings.

iii. Within, or within 500 feet of, a wetland;

No wetlands were observed during the site inspection (Appendix A). A topographic map provided by the U.S. Fish and Wildlife Service National Wetlands Inventory database was reviewed for wetlands in the vicinity of the site. Wetlands were not observed in or within 500 feet of the perimeter of the discharge area. A copy of the topographic map is included in Appendix B, Figure B-1.

iv. Within the area overlying a subsurface mine; or

A map generated from the New Mexico Mining and Minerals Division GIS database was reviewed for active mines. No active mines were located at or in the vicinity of proposed discharge area (Figure C-1 in Appendix C). Mr. Mike Tompson, with the New Mexico Abandoned Mine Lands Program, was contacted on July 5, 2013 to assess the presence of abandoned subsurface mines in the vicinity of the proposed discharge area. According to Mr. Tompson, they have no record of abandoned subsurface mines within a half mile radius of the proposed discharge site (see email, Appendix C).

v. Within 500 feet from the nearest permanent residence, school, hospital, institution or church.

No permanent residences, school, hospital, institution or church were noted on aerial photographs of the area (Figure 2), nor were they noted during the site visit (Appendix A).

**Item f. A brief description of the activities that produce the discharge;**

Pressure testing with water, also known as hydrostatic testing, is one of the tools pipeline operators use to verify pipeline integrity. The purpose of hydrostatic testing of a pipeline is to determine the extent to which potential defects might threaten the pipeline's ability to sustain maximum allowable operation pressure. Because this is new piping, previous contents of the pipe do not need to be cleared. Segment 3 will be tested in five sections. Test water will be introduced into the first section to be tested. The pipeline will then be pressurized to a pressure higher than maximum operating pressure for approximately eight hours. After that section is tested, that test section will be de-pressurized and needed volume of water will be pushed into the next section for re-use in testing. Excess water will be held in the previous test section. If leaks or breaks occur, that section of pipeline is repaired or replaced, then re-tested. Test section sequence is as follows:

- MP 236.3 to 240.3
- MP 240.3 to 241.5
- MP 241.5 to 252.1
- MP 252.1 to 262.2

- MP 262.2 to 270.0

After this sequence is complete, the water used in the last test, along with any excess water remaining in previous sections, will be pushed back to MP 241.5 for discharge.

***Item g. The method and location for collection and retention of fluids and solids;***

Because the piping is new, solids are not anticipated to be produced as a result of the hydrostatic testing. Once hydrostatic testing has been completed in all sections, a sample will be collected from the pipe at the discharge location (MP 241.5). The water will be tested for water quality as described in *item j*. Water will be held in the pipe until the test results are received and approved. Once approval to discharge has been received, the test water will be allowed to flow onto approximately 49,120 square feet of the ROW and onto approximately 90,625 square feet of the adjacent property to the north.

***Item h. A brief description of best management practices to be implemented to contain the discharge onsite and to control erosion;***

Non-woven geotextile fabric will be installed beneath the dissipation structure to prevent scouring. Hay bales will be used to control erosion as the water is discharged from the pipeline at a rate of approximately 1,500 gallons per minute (gpm) into the hydrostatic waste water dissipation and discharge system. A connector pipe is attached to the end of the pipeline and to a baffle "T" located within the dissipation structure. Pipeline water will gradually be released from the dissipation structure at a low flow rate onto the area described in *item g*. The dissipation and discharge structure will be built to maintain the proper flow rate to avoid scouring the landscape. Soil berms approximately four feet wide and three feet high will be placed south of the discharge area to prevent flow onto the road or properties to the south (Figure 2). A diagram and description of the hydrostatic waste water dissipation and discharge system is shown in Figure 3.

***Item i. A request for approval of an alternative treatment, use, and/or discharge location (other than the original discharge site), if necessary;***

No alternate discharge sites have been proposed for this segment.

If hydrostatic test water analytical results exceed the greater of the standards of NMAC 20.6.2.3103 or background levels for discharge, the test water will be treated using an electro-coagulation cleaning process and a separate filtering system. This process is described in Appendix G.

After the electro-coagulation process is completed, the water will be tested again as described in Appendix G. If it does still not meet the greater of standards of NMAC 20.6.2.3103 or background levels required for discharge approval, the water will be hauled and disposed of as described in *item k*.

***Item j. A proposed hydrostatic test wastewater sampling plan;***

Enterprise requests that it not be required to test for Radium 226/228. The King well, sampled on April 11, 2013, had the following results for radium (in pCi/L): Radium – 226 at  $0.0647 \pm 0.380$ ; and Radium – 228 at  $0.463 \pm 0.432$ . These levels are below the 30 pCi/L standard in NMAC 20.6.2.3103. The laboratory analytical report is included in Appendix H.

Prior to discharge, Enterprise will collect a sample of the test water from the discharge location (MP 241.5) and have it analyzed using the following methods.

<b>SAMPLING PLAN FOR COMPLIANCE WITH NMAC 20.6.3103 (A), (B), (C)</b>		
<b>ANALYTES</b>	<b>METHOD</b>	<b>BOTTLE TYPE/PRESERVATIVE</b>
Volatile Organics	8260B	3 x 40 ml VOA's / HCl
Ethylene dibromide	504.1	2 x 40 ml VOA's / Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>
Polychlorinated Biphenols	8082	2 x liter amber / unpreserved
Polynuclear Aromatic Hydrocarbons	8310	1 x liter amber / unpreserved
Phenols	9067	1 x liter amber / H <sub>2</sub> SO <sub>4</sub>
Anions, TDS, pH	300.0	1 x 500 ml plastic / unpreserved
	SM 2540C SM 4500-H+B	1 x 125 ml plastic / H <sub>2</sub> SO <sub>4</sub>
Mercury	245.1	1 x 500 ml plastic / HNO <sub>3</sub>
Dissolved Metals	200.7 / 200.8	1 x 125 ml plastic + filter & syringe / HNO <sub>3</sub>
Total Cyanide	335.4	1 x 500 ml plastic amber / NaOH

Once the results have been received, they will be forwarded to the NMOCD. Upon NMOCD concurrence that the discharge water meets the water quality standards of NMAC 20.6.2.3103, or background levels, whichever is greater, Enterprise will discharge the water in accordance with the approved discharge permit.

***Item k. A proposed method of disposal of fluids and solids after test completion, including closure of any pits, in case the water generated from test exceeds the standards as set forth in Subsections A, B, and C of the 20.6.2.3103 NMAC (the New Mexico Water Quality Control Commission Regulations);***

As described in Appendix G, if after the electro-coagulation process, if the test water still exceeds discharge requirements, the water will be transported from the project site in DOT-approved tanker trucks to one of the following waste water disposal companies:

- Basin Disposal, Inc. (API 30-045-26862, Disposal Well No. 1: IPI-149-0) in Aztec, New Mexico;
- Agua Moss, LLC (Permit # UIC-I-005) on Crouch Mesa, in Bloomfield New Mexico; or
- Gandy Marley, Inc. (Permit # NM1-19-0) on Highway 380 between Tatum and Roswell, New Mexico.

The water will be transported by one or more of the following NMOCD-approved haulers:

- Dawn Trucking Co. (C133-31);
- M&R Trucking, Inc. (C133-399);
- Three Rivers Trucking, Inc. (C133-335); or
- Triple S Trucking Co., Inc. (C133-372).

Any solids generated using the electro-coagulation process will be disposed of at one of the following NMOCD-approved commercial surface waste management facilities:

- Gandy Marley Inc., in Chaves County (Permit No. 19).
- Lea Land Inc. in Lea County (Permit No. 24).



- R360 Permian Basin LLC (formerly Controlled Recovery Inc.) in Lea County (Permit No. 6).

C-138 manifest forms will be prepared and provided with all liquid and solid waste that is hauled for disposal.

**Item l. A brief description of the expected quality and volume of the discharge;**

The volume of the hydrostatic test water expected to be discharged is approximately 850,000 gallons. Source water used for the hydrostatic test will be water from the King well. Laboratory analytical data collected from the King well on April 11, 2-13, is included in Appendix H. New piping will be tested which should not impact the quality of the water being discharged.

**Item m. Geological characteristics of the subsurface at the proposed discharge site;**

Information regarding the soil characteristics was obtained from the United States Department of Agriculture (USDA) soil survey (USDA, 2008). Based on that information, soils in the area are dominated by Hyer-Witt complex surface soils comprised of well-drained silt loam. Hyer-Witt soil is formed in eolian and/or alluvium derived from sandstone and shale. It is associated with 0 to 3 percent slopes. There are also Lazarus silt loam and Palma fine sandy loam soils in the area. Both of these alluvial soil types are also derived from sandstone and shale. Palma is associated with 3 to 8 percent slopes and Lazarus is associated with 0 to 2 percent slopes.

The soil overlies Alluvium (Qa) and Older Alluvium (Qoa) (Figure D-1, Appendix D). These alluvium formations generally occur on valley floors. They consist of unconsolidated silt, sand, and gravel (Titus, 1980). Karst was not identified at or within the area surrounding the discharge area (Figure D-2, Appendix D).

**Item n. The depth to and total dissolved solids concentration of the ground water most likely to be affected by the discharge; and**

The groundwater most likely to be affected by the discharge is the Shallow Aquifer of the Estancia Valley formation. Depth to water from area wells ranges from 30-210 feet with an average of 140 feet below ground surface.

The OSE website was accessed on July 3, 2013 and August 15, 2013 to obtain available depth to water data in the vicinity of the discharge area. As discussed in *item b*, no data was available for two of the wells located closest to the discharge site, wells E 00308 S-3 and E 00308 EXPL-2. The closest available data to the discharge area were from two wells; E00308 S-2, located approximately 2,000 feet north-northeast and well E 00308 S-5 located approximately 2,800 feet northeast of the site. Using ground elevation data obtained from the topographic map and depth to water information found on the OSE website the elevation of shallow aquifer in this area is:

Well ID	Ground Surface Elevation	Depth to Water	Groundwater Elevation
E 00308 S-2	6285	188	6097
E 00308 S-5	6257	128	6129
E 08817 POD1	6231	185	6046

The water source for the test water used in the hydrostatic testing of Segment 3 is the King well, is located approximately 1.5 miles away from the site. Based on data from the OSE website, the closest well with available groundwater data is E 08817 POD1, located approximately 500 feet northwest of the King well. Using ground surface elevation data from the topographic map and data from the OSE website, groundwater elevation of the shallow aquifer in the vicinity of the King well is 6046 feet, as summarized in the table above.

The King well is completed in the Shallow Aquifer of the Estancia Valley formation; the same shallow aquifer that is present at the discharge location. The concentration of applicable constituents (same constituents as those listed in NMAC 20.6.2.3103) detected in a groundwater sample collected from the King well, can be considered background groundwater quality for the groundwater at the discharge location. The total dissolved solids concentration in the King well, in a sample collected in April 2013, was 2,070 milligrams/liter (mg/L). Chloride and sulfate concentrations in the King well were 350 mg/L and 980 mg/L, respectively (Appendix H). These constituent values are representative of background values for the Shallow Aquifer.

**Item o. Identification of landowners at and adjacent to, the discharge and collection/retention site:**

The landowner of record for the property at the discharge location is:

Map Parcel ID	Santa Fe County Parcel ID	Property Owner
A	910016102	SLK Properties, LLC 3195 B Highway 41 Moriarty, NM 87035

Signed permission from the landowner to discharge onto private property north of the ROW is included in Appendix E.

The landowners of record for properties adjacent to the property where the discharge will occur are:

Map Parcel ID	Santa Fe County Parcel ID	Property Owner
B	910016100	King Farms Box 2670 Moriarty, NM 87035
C	910005882	State Land Office 310 Old Santa Fe Trail Santa Fe, NM 87501
D	910013938	David and Diane Lee Et. al. PO Box 35640 Albuquerque, NM 87176
E	910016103	King Farms 3195 B Highway 41 Moriarty, NM 87035
F	99304017	Joshua Chad and Tonya Cogburn 92 Martin Ln. Moriarty, NM 87035
G	99000700	Edward J. and Lourdes R. Kulik 1177 Masterpiece Drive Oceanside, CA 92057
H	99000701	Robert A. and Julie A. Meisel 1309 Greengate Court Waldorf, MD 20601

Map Parcel ID	Santa Fe County Parcel ID	Property Owner
I	99206620	David M. and Sandye L. Abbate PO Box 2897 Moriarty, NM 87035
J	99206617	Charles and Brenda Breckenridge, P.O. Box 1177 Moriarty, NM 87035
K	960000560	John Wayne Davis PO Box 266 Moriarty, NM 87035
L	98700629	Joe Victor Davis PO Box 266 Moriarty, NM 87035
M	98401474	Calvin L. Davis, Sr PO Box 1890 Moriarty, NM 87035

Figure E-1 illustrates the parcel locations discussed above.

## References

Go-Tech, New Mexico Water database (NM WAIDS, accessed August 15, 2013, <http://octane.nmt.edu/waterquality/data/gwatersearch.aspx>.

Office of the State Engineer (OSE) database search accessed in July 8, 2013, <http://nmwrrs.ose.state.nm.us/nmwrrs/index.html>.

Titus, F.B., 1980, "Ground Water in the Sandia and Northern Manzano Mountains, New Mexico" Rep. no. 5. Socorro, NM: New Mexico Bureau of Mines and Mineral Resources, 1980.

United States Department of Agriculture (USDA) Soil Survey database, accessed July 8, 2013, <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

## GIS References – Segment 3

NM Topographic 7.5' quadrangle maps (Segment 3)

- Bernalillo
- Hagen
- Captain Davis Mountain
- Sandia Crest
- San Pedro
- Stanley
- Tijeras
- Edgewood
- Hubble Spring
- Escabosa
- Moriarty South
- Placitas
- Golden
- Alameda
- Sandia Park
- King Draw
- Albuquerque East
- Sedillo
- Moriarty North
- Mount Washington
- Chilili
- Lobo Hill

Basemap for inset on Figure 3

- -ESRI World Street Map. Sources: ESRI, DeLorme, NAVTEQ, TomTom, USGS, Intermap, iPC, NRCAN, ESRI Japan, METI, ESRI China (Hong Kong), ESRI (Thailand)

#### Aerial imagery on Figure 2, Segment 3

- ESRI World Imagery; ESRI DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community. Date of image: 06/18/2010

#### State and County boundaries

- ESRI Street Map North America dated August 17, 2010

#### Cities and Towns; Urban areas

- \*TIGER urban areas 2010 (tl\_2010\_35\_place10.shp) 2010 Census data
- ESRI Street Map North America dated August 17, 2010

#### PLSS

- \*BLM GIS dataset dated June 3, 2013

#### Surface waters (streams and water bodies)

- \*National Hydrography Dataset, USGS, GIS dataset downloaded May 4, 2011

#### Wetlands

- \*National Wetlands Inventory, USF&WS, GIS dataset downloaded May 4, 2011

#### OSE Wells

- \*New Mexico Office of the State Engineer, Excel spreadsheet dated of July 2011
- Unable to find the USGS wells listed on the PRRC references sheet

#### Floodplains, Segment 3

- \*S\_FLD\_HAZ\_LN downloaded from New Mexico Resource Geographic Information System Program, <http://rgis.unm.edu/> GIS shapefile downloaded June 5, 2013
- FEMA DFIRM Panel 35043C2075F dated 8/5/2010

#### Mines

- New Mexico Mining and Minerals Division, February 2012
- \*Coal mine permit boundaries shapefile from RGIS, downloaded June 17, 2013
- Potash areas from BLM Carlsbad Field Office basemap, downloaded May 8, 2012

#### Geology

- USGS OFR 2005-21351. Stoesser, D.B., G.N. Green, L.C. Morath, W.D. Heran, A.B. Wilson, D.W. Moore, and B.S. Van Gosen, 2005. Preliminary Integrated Geologic Map Databases for the United States; Central States: Montana, Wyoming, Colorado, New Mexico, Kansas, Oklahoma, Texas, Missouri, Arkansas, and Louisiana, - The State of New Mexico. U.S. Geological Survey Open-File Report 2005-1351
- USGS Fault and Fold Database, GIS shapefiles downloaded November 3, 2010
- BLM Carlsbad Field Office GIS Basemap GIS dataset downloaded on May 8, 2012

#### Karst

- \*USGS OF 2004-1352. Tobin, Bret D., and David J. Weary, 2004. Digital Engineering Aspects of Karst Map: A GIS version of Davies, W.E., Simpson, J.H., Ohlmacher, G.C., Kirk, W.S., and Newton, E.G., 1984, Engineering aspects of karst: U.S. Geological Survey, National Atlas of the United States of America, scale 1:7,500,000. U.S. Geological Survey Open-File Report 2004-1352

- BLM Carlsbad Field Office GIS Basemap, Caves potential GIS shapefile downloaded on May 8, 2012
- BLM NM GIS dataset, Karst potential, GIS shapefile provided by BLM on April 3, 2012

#### Land Ownership

- BLM NM GIS dataset downloaded June 3, 2013

\*same source as used on Pit Rule Petroleum Recovery Research Center database (PRRC)  
[http://ford.nmt.edu/prrc\\_MF/index5.html](http://ford.nmt.edu/prrc_MF/index5.html)

1

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## FIGURES

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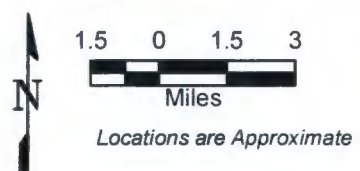
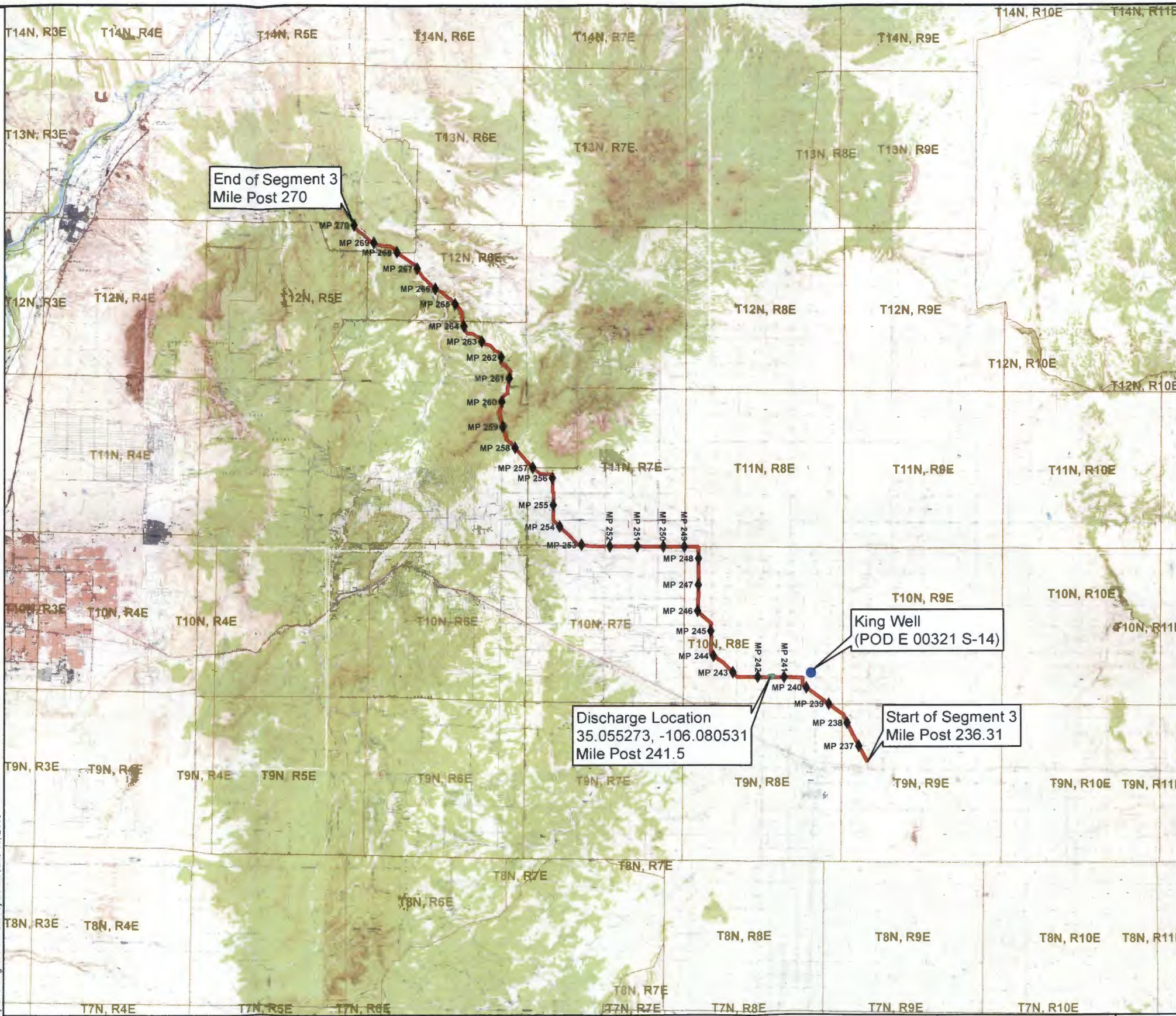


Source: ESRI World Street Map

# LEGEND

- DISCHARGE LOCATION
- MILE POST
- APPROXIMATE SEGMENT OF PIPELINE TO BE HYDROSTATICALLY TESTED
- SOURCE WELL LOCATION

Source: USGS 7.5' Quadrangle Topographic Maps  
 Bernalillo, Placitas, Hagen, Golden, Captain Davis Mountain, Alameda, Sandia Crest, Sandia Park, San Pedro, King Draw, Stanley,  
 Albuquerque East, Tijeras, Sedillo, Edgewood, Moriarty North, Hubble Spring, Mount Washington, Escabosa, Chilli, Moriarty South,  
 Lobo Hill, NM  
 Centerline: SPREAD3\_JFC\_8470SEG3A\_060313\_CL.shp and SPREAD3\_JFC\_8470SEG3B\_060313\_CL.shp provided  
 by JFC Engineers & Surveyors on June 18, 2013



PROJECT NO.: 134288	NEW ENTERPRISE PIPELINE WEP III SEGMENT 3		FIGURE  <b>1</b>
DRAWN: AUG 2013	ENTERPRISE PRODUCTS OPERATING LLC SANDOVAL, BERNALILLO, SANTA FE AND TORRANCE COUNTIES, NEW MEXICO		
DRAWN BY: KFH			
CHECKED BY: ES			
FILE NAME: Seq3_Figure1.mxd	ORIGINATOR: K. HAGAN APPROVED BY: <i>KS</i> 8/28/13	DRAWING CATEGORY: 1	

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Date: 8/16/2013  
 User: KHagan

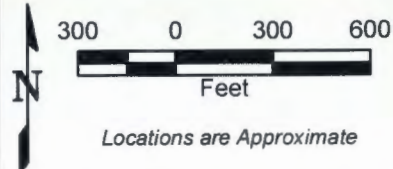




User: Khagan  
Date: 8/19/2013

Source: ESRI World Imagery; ESRI, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community. Date of image: 03/23/2011  
SPREAD3\_IFC\_8470SEG3B\_060313\_CL.shp, SPREAD3\_IFC\_8470SEG3\_060313\_CROW.shp  
provided by JFC Engineers & Surveyors on June 18, 2013

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PROJECT NO.: 134288	NEW ENTERPRISE PIPELINE WEP III SEGMENT 3 DISCHARGE LOCATION	
DRAWN: AUG 2013		
DRAWN BY: KFH	ENTERPRISE PRODUCTS OPERATING LLC SANTA FE COUNTY, NEW MEXICO	
CHECKED BY: ES		
FILE NAME: Seg3_Figure2.mxd	ORIGINATOR: K. HAGAN APPROVED BY: <i>CL</i> 8/20/13	DRAWING CATEGORY: 1



**Straw bale catch basin:** Bales will be installed 2-3 bales high and 2 bales wide.

**Top View**

**Mirafi Fabric:** Mirafi fabric will be installed on the inner walls of the interior straw bale catch basins to ensure the capture of suspended solids and debris that may occur from the testing procedure.

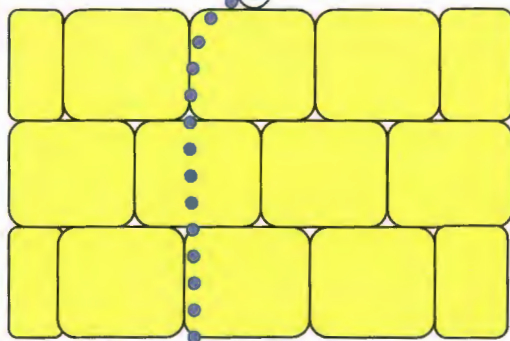
**Plywood Supports:** Plywood supports will be built to support the discharge point and the overflow pipe so that they do not rest on the straw bales.

**Discharge points**

**Diffuser:** A diffuser will be installed at the discharge point to dissipate the energy of the water.

**Overflow Pipe**

**Side View**



This system is designed to capture sediment and debris while allowing water to flow through. The size of the catch basin will be approximately 30x40 feet in size. This system is designed so that water will flow through the bales and filter out into the surrounding vegetation at a slow velocity. If too much water enters the catch basin, there is an overflow pipe to prevent the structure from collapse. Geotech fabric will be installed below the overflow to prevent erosion.



PROJECT NO.:	134288
DRAWN:	JUL 2013
DRAWN BY:	KFH
CHECKED BY:	ES
FILE NAME:	Seg3_Figure3.doc

**DISSIPATION AND DISCHARGE SYSTEM**

ENTERPRISE PRODUCTS OPERATING LLC  
SANTA FE COUNTY, NEW MEXICO

ORIGINATOR:	K.HAGAN	DRAWING CATEGORY
APPROVED BY:	ES 8/2/13	1

FIGURE

**3**

**APPENDIX A**  
**Certification of Siting Criteria**

## Certification of Siting Criteria

*Hydrostatic Discharge Line*

I, Gunnar Westerman, have performed a site visit to look for the presence of the items described below and have confirmed that evidence of these items was not observed within the specified distance from the discharge area. The discharge area will be located (35.055273°,-106.080531°) in the SE/4 of the SW/4 of Section 27, Township 10 North, Range 8 East in Santa Fe County, NM.

1. Within 200 feet of a watercourse, lakebed, sinkhole or playa lake;
2. Within an existing wellhead protection area (200 feet from a private, domestic fresh water well or spring used by less than five households for domestic or stock watering purposes or 1,000 feet from any other fresh water well or spring);
3. Within a surface expression of a subsurface mining operation or karst feature;
4. Within, or within 500 feet of, a wetland; or
5. Within 500 feet from the nearest permanent residence, school, hospital, institution or church.

On behalf of Enterprise Products, I state that the above information is complete and true to the best of my knowledge.



Signature

07/03/2013

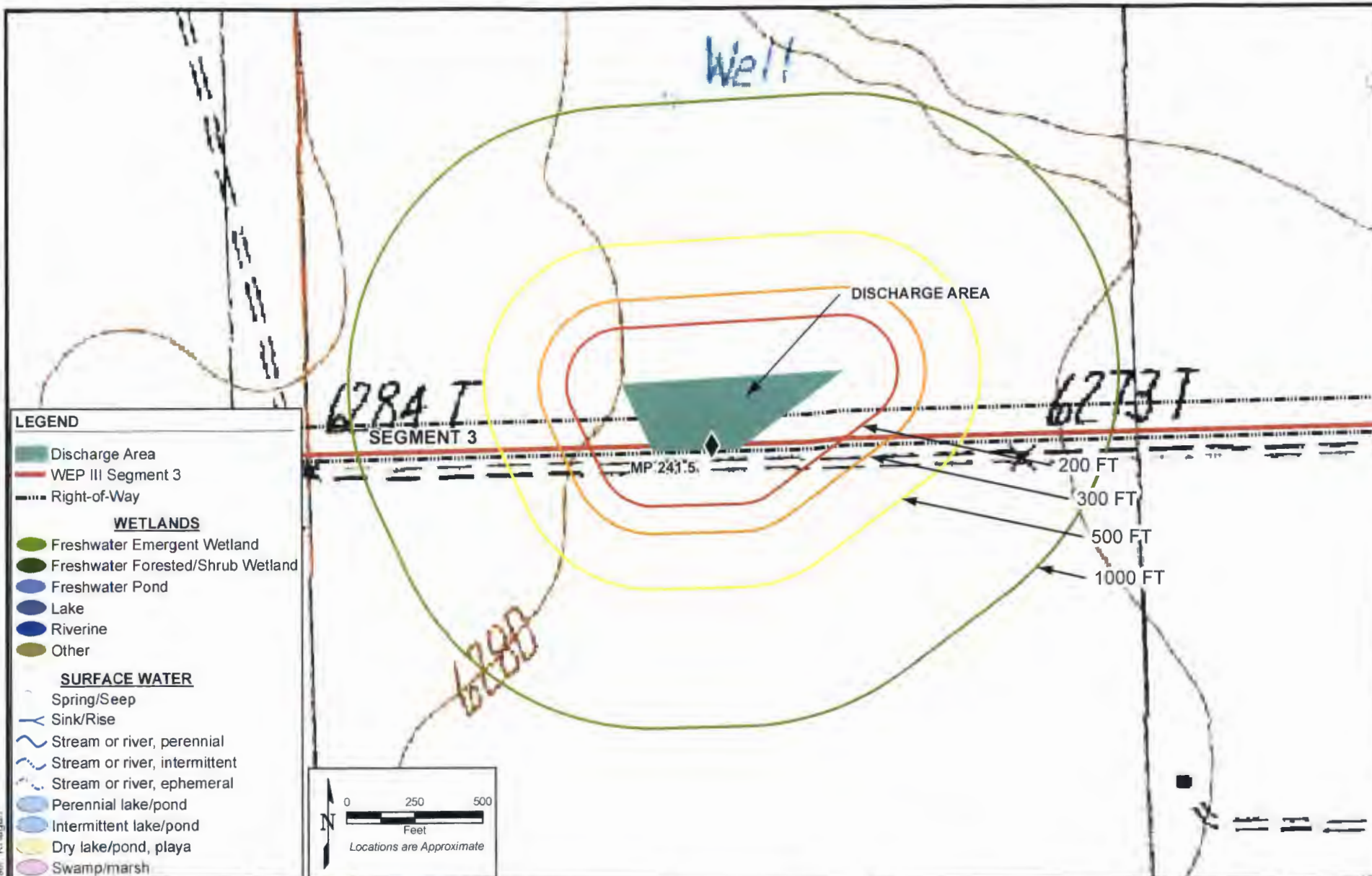
Date of Site Visit

Environmental Scientist/Field Tech.

Title:

## **APPENDIX B**

### **Water Feature, Water Well Information and Floodplain Information**



Sources:  
SPREAD3\_IFC\_8470SEG3B\_060313\_CL.shp and  
SPREAD3\_IFC\_8470SEG3B\_060313\_CROW.shp  
provided by JFC Engineers & Surveyors on June 18, 2013  
National Wetlands Inventory, USF&WS  
National Hydrography Dataset, USGS  
USGS 7.5' Topographic Quadrangle, Moriarty North, NM

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PROJECT NO. 134288  
DRAWN: AUG 2013  
DRAWN BY: KFH  
CHECKED BY: ES  
FILE NAME: Seg3\_FigureB1.mxd

**SURFACE WATER AND WETLANDS NEAR  
DISCHARGE AREA, WEP III SEGMENT 3**

ENTERPRISE PRODUCTS OPERATING LLC  
SANTA FE COUNTY, NEW MEXICO

ORIGINATOR: K. HAGAN  
APPROVED BY: KS 8/20/13  
DRAWING CATEGORY: 1

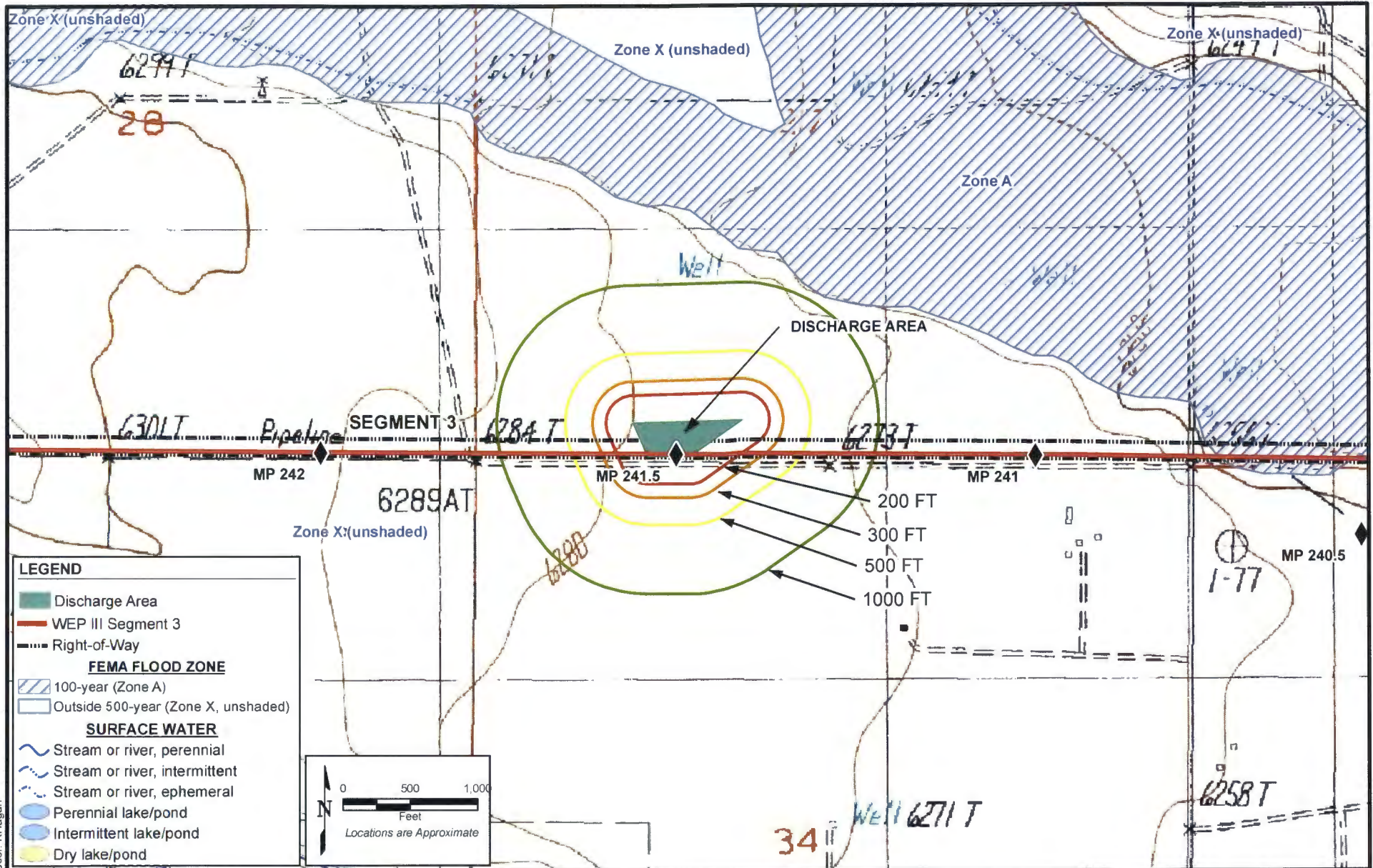
FIGURE

**B-1**









Sources:  
SPREAD3\_IFC\_8470SEG3B\_060313\_CL.shp and  
SPREAD3\_IFC\_8470SEG3B\_060313\_CROW.shp  
provided by JFC Engineers & Surveyors on June 18, 2013  
FEMA FIRM panel 35049C1025D dated 6/17/2008  
USGS 7.5' Topographic Quadrangle, Moriarty North, NM

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FILE NAME: Seg3\_FigureB3.mxd

**FEMA FLOOD MAP FOR THE VICINITY OF THE  
DISCHARGE AREA, WEP III SEGMENT 3**

ENTERPRISE PRODUCTS OPERATING LLC  
SANTA FE COUNTY, NEW MEXICO

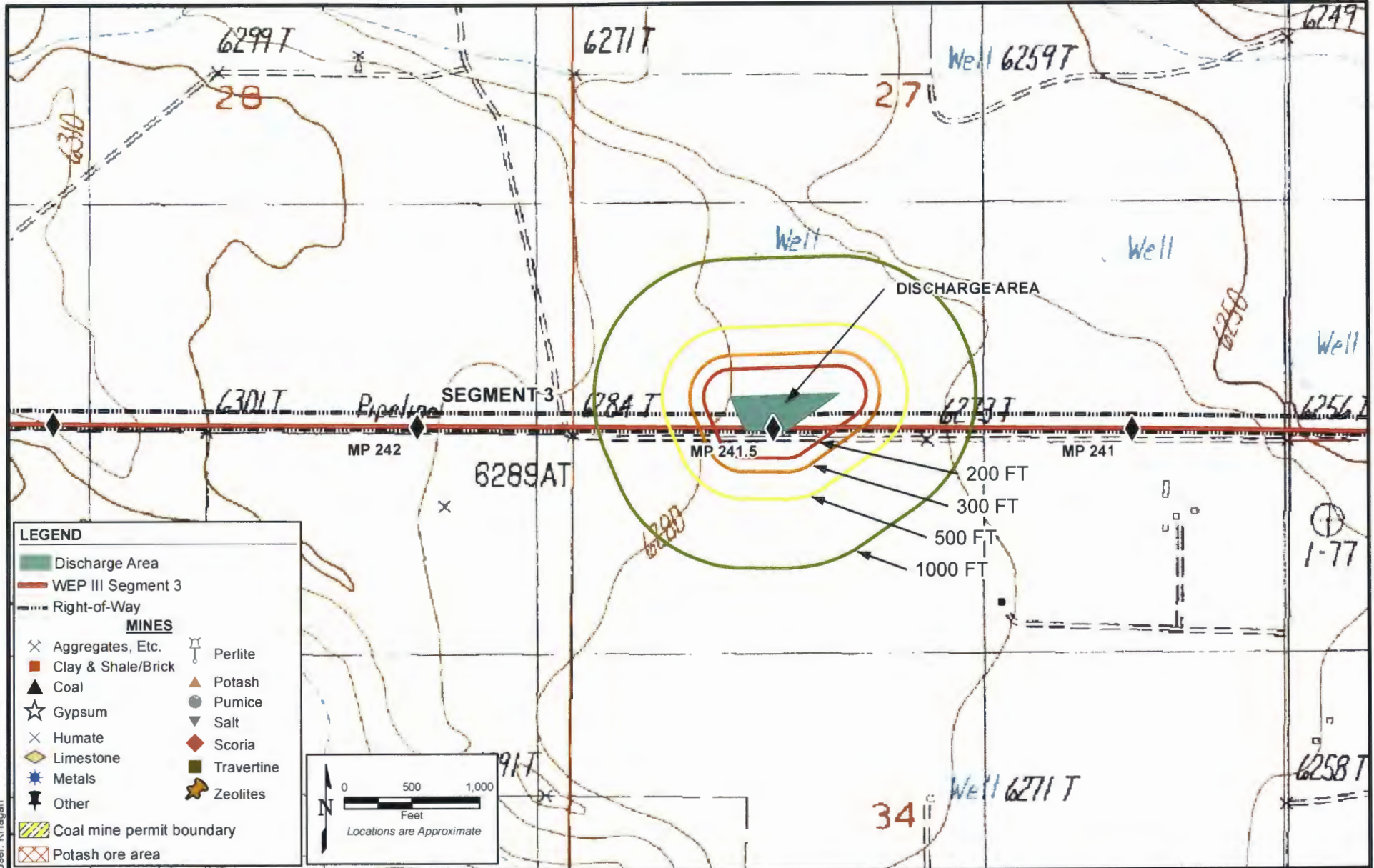
ORIGINATOR: K. HAGAN  
APPROVED BY: *EL* 8/28/13

DRAWING CATEGORY:  
1

FIGURE  
**B-3**

**APPENDIX C**  
**Area Mine Information**





Sources:  
SPREAD3\_JFC\_8470SEG3B\_060313\_CL.shp and  
SPREAD3\_JFC\_8470SEG3B\_060313\_CROW.shp  
provided by JFC Engineers & Surveyors on June 18, 2013  
New Mexico Mining and Minerals Division, February 2012  
National Hydrography Dataset, USGS  
USGS 7.5' Topographic Quadrangle, Moriarty North, NM

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PROJECT NO.	134288	<b>ACTIVE MINING NEAR THE DISCHARGE AREA, WEP III SEGMENT 3</b>		<div>FIGURE</div> <div>C-1</div>
DRAWN:	AUG 2013			
DRAWN BY:	KFH	ENTERPRISE PRODUCTS OPERATING LLC SANTA FE COUNTY, NEW MEXICO		
CHECKED BY:	ES			
FILE NAME:	Seg3_FigureC1.mxd	ORIGINATOR: K. HAGAN	DRAWING CATEGORY:	
		APPROVED BY: <i>ES</i> 8/28/13	1	

User: KHagan

Date: 8/15/2013

**RE: Mines in Vicinity of Proposed Hydrostatic Testing**

Tompson, Mike, EMNRD [Mike.Tompson@state.nm.us]

**Sent:** Friday, July 05, 2013 11:09 AM

**To:** Melissa Cote

**Cc:** Kretzmann, John, EMNRD [john.kretzmann@state.nm.us]

Melissa,

The New Mexico Abandoned Mine Land Program has no record of any abandoned mines in Section 27, Township 10 North, Range 8 East. We also have no record of mines in the adjoining sections.

Please let me know if you need anything else.

Mike

**From:** Melissa Cote [mailto:MCote@kleinfelder.com]

**Sent:** Wednesday, July 03, 2013 3:21 PM

**To:** Tompson, Mike, EMNRD

**Subject:** Mines in Vicinity of Proposed Hydrostatic Testing

Hi Mike,

I am working on a hydrostatic discharge plan for a different section of the Enterprise pipeline. We are required to research whether there are any mines in the vicinity of the proposed discharge area.

The discharge area is located at:

- southeast 1/4; southwest 1/4; section 27, T10N, R8E.
- latitude 35.055323, longitude -106.079792

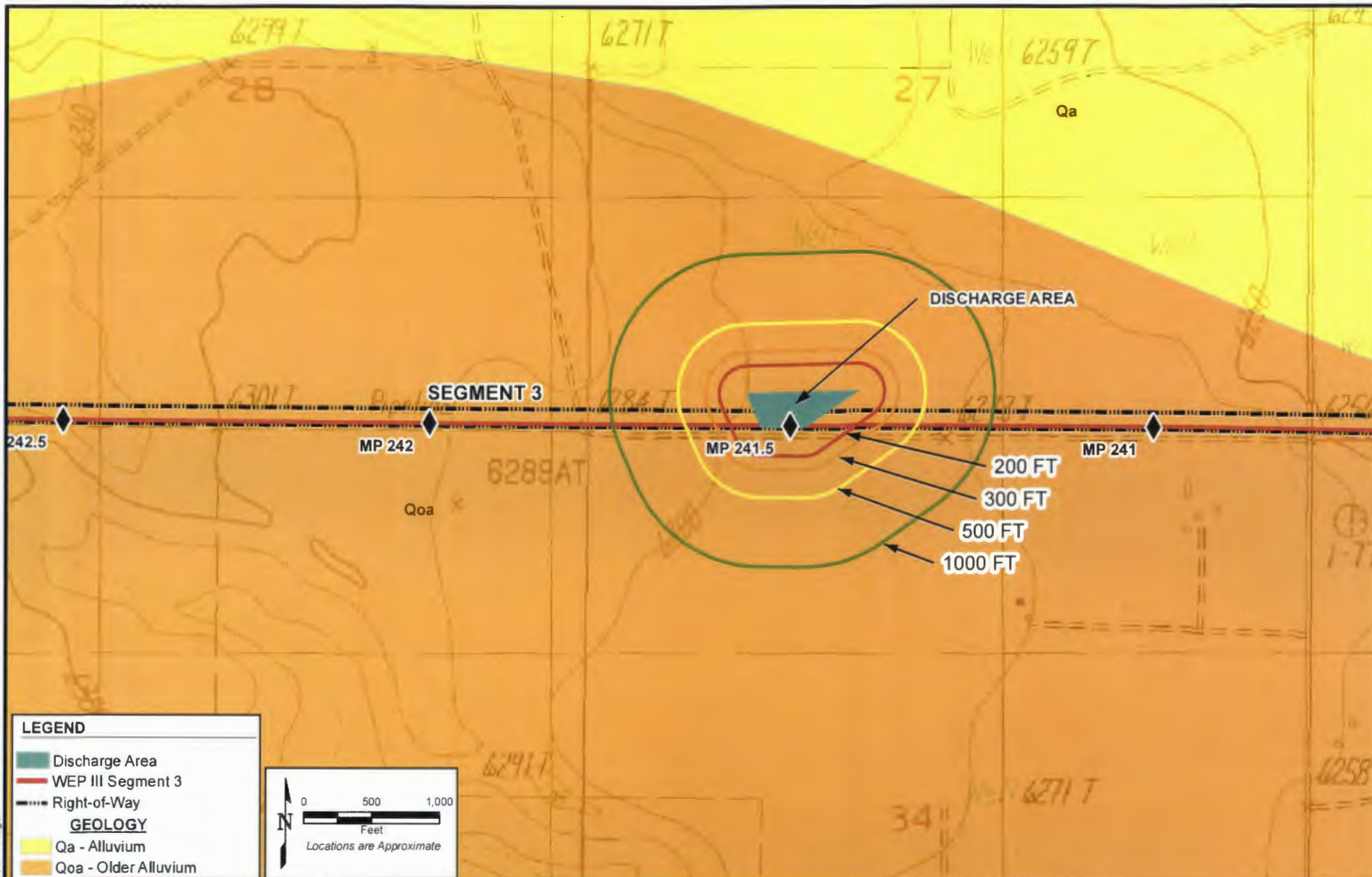
Would you be able to tell us whether there are any mines within a 1/2 mile radius of this area?

Thank you and have a nice holiday,

Melissa Cote

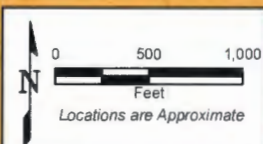
**APPENDIX D**  
**Geology**





# LEGEND

- Discharge Area
- WEP III Segment 3
- Right-of-Way
- GEOLOGY**
- Qa - Alluvium
- Qoa - Older Alluvium



Sources:  
SPREAD3\_JFC\_8470SEG3B\_060313\_CL.shp and  
SPREAD3\_JFC\_8470SEG3B\_060313\_CROW.shp  
provided by JFC Engineers & Surveyors on June 18, 2013  
USGS OFR 2005-21351  
USGS 7.5' Topographic Quadrangle, Moriarty North, NM

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PROJECT NO. 134288  
DRAWN: AUG 2013  
DRAWN BY: KFH  
CHECKED BY: ES  
FILE NAME: Seg3\_FigureD1.mxd

## GEOLOGY IN THE VICINITY OF THE DISCHARGE AREA, WEP III SEGMENT 3

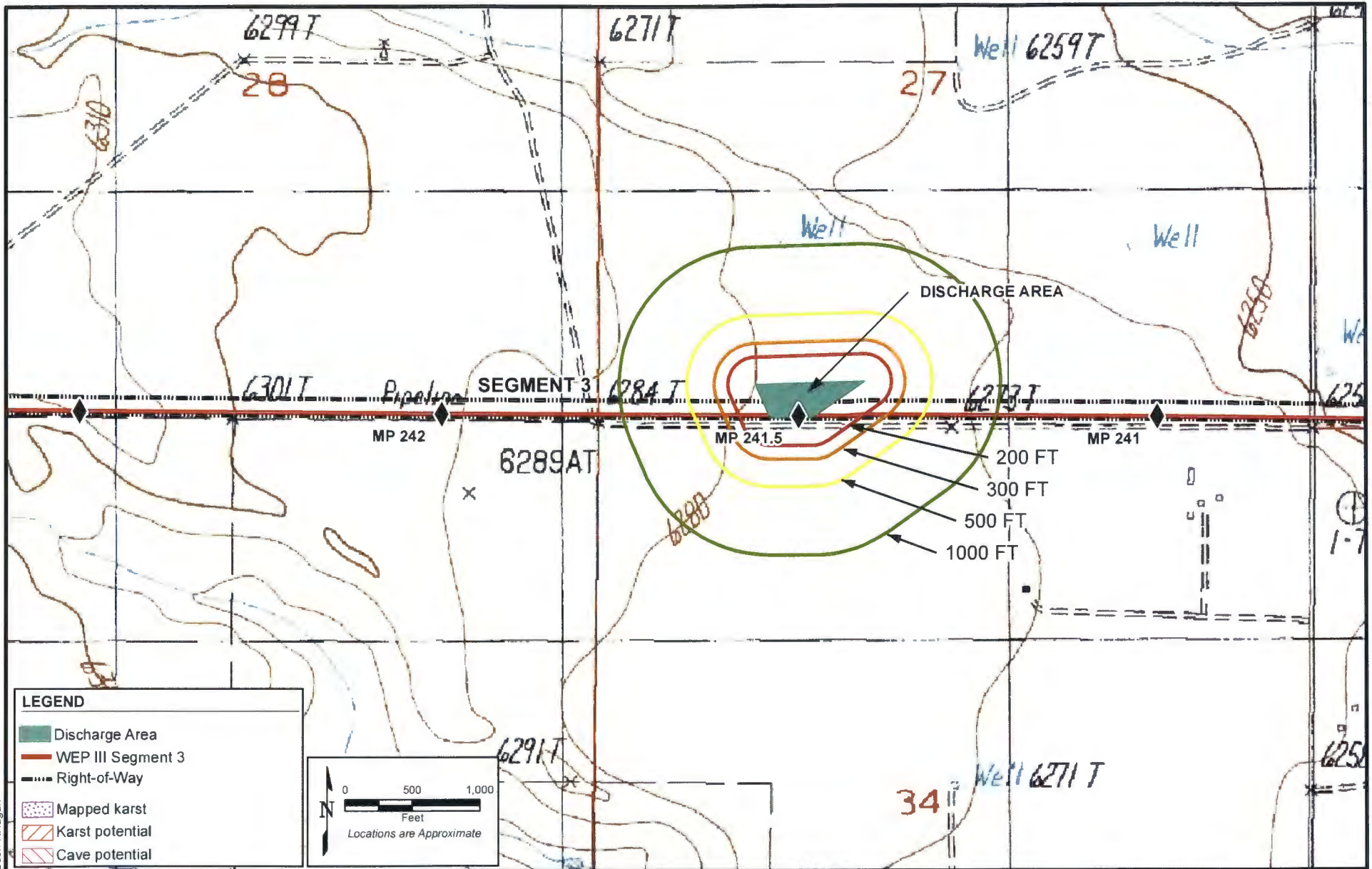
ENTERPRISE PRODUCTS OPERATING LLC  
SANTA FE COUNTY, NEW MEXICO

ORIGINATOR: K. HAGAN  
APPROVED BY: 6258-2813

DRAWING CATEGORY:  
1

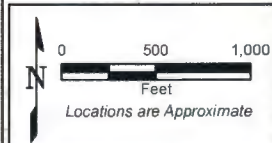
FIGURE

**D-1**



# LEGEND

- Discharge Area
- WEP III Segment 3
- Right-of-Way
- Mapped karst
- Karst potential
- Cave potential



Sources:  
SPREAD3\_JFC\_8470SEG3B\_060313\_CL.shp and  
SPREAD3\_JFC\_8470SEG3B\_060313\_CROW.shp  
provided by JFC Engineers & Surveyors on June 18, 2013  
USGS OFR 2004-1352  
New Mexico BLM GIS Basemap  
USGS 7.5' Topographic Quadrangle, Moriarty North, NM

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DRAWN: AUG 2013  
DRAWN BY: KFH  
CHECKED BY: ES  
FILE NAME: Seg3\_FigureD2.mxd

**KARST IN THE VICINITY OF THE DISCHARGE AREA, WEP III SEGMENT 3**  
ENTERPRISE PRODUCTS OPERATING LLC  
SANTA FE COUNTY, NEW MEXICO  
ORIGINATOR: K. HAGAN  
APPROVED BY: *ES 8-28-13*

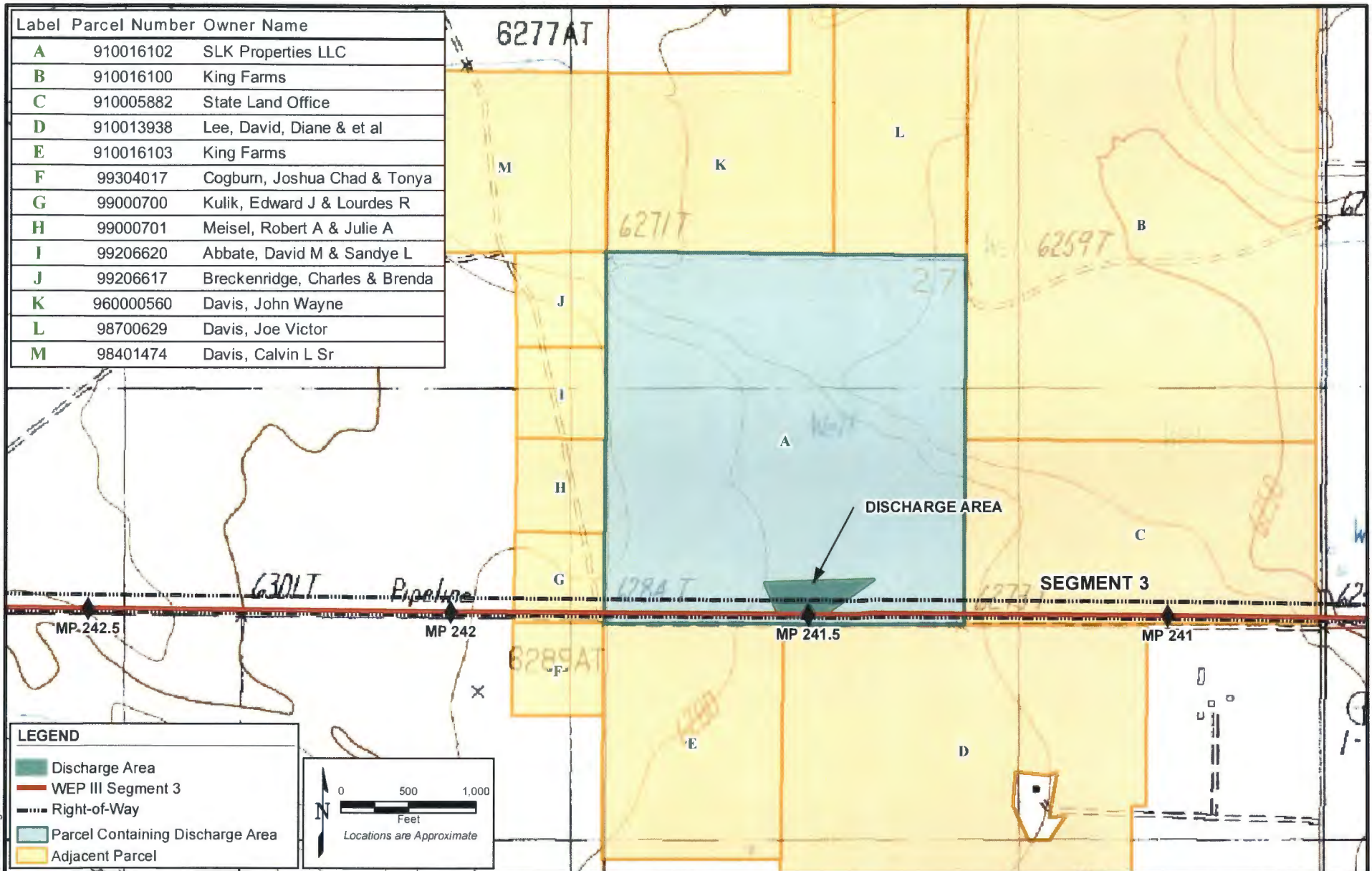
FIGURE  
**D-2**

DRAWING CATEGORY:  
1

**APPENDIX E**  
**Area Landownership**



Label	Parcel Number	Owner Name
A	910016102	SLK Properties LLC
B	910016100	King Farms
C	910005882	State Land Office
D	910013938	Lee, David, Diane & et al
E	910016103	King Farms
F	99304017	Cogburn, Joshua Chad & Tonya
G	99000700	Kulik, Edward J & Lourdes R
H	99000701	Meisel, Robert A & Julie A
I	99206620	Abbate, David M & Sandye L
J	99206617	Breckenridge, Charles & Brenda
K	960000560	Davis, John Wayne
L	98700629	Davis, Joe Victor
M	98401474	Davis, Calvin L Sr



Sources:  
SPREAD3\_IFC\_8470SEG3B\_060313\_CL.shp and  
SPREAD3\_IFC\_8470SEG3B\_060313\_CROW.shp  
provided by JFC Engineers & Surveyors on June 18, 2013  
New Mexico BLM GIS dataset  
National Hydrography Dataset, USGS  
USGS 7.5' Topographic Quadrangle, Moriarty North, NM

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PROJECT NO. 134288  
DRAWN: AUG 2013  
DRAWN BY: KFH  
CHECKED BY: ES  
FILE NAME: Seg3\_FigureE1.mxd

**LAND OWNERSHIP IN THE VICINITY OF THE  
DISCHARGE AREA, WEP III SEGMENT 3**

ENTERPRISE PRODUCTS OPERATING LLC  
SANTA FE COUNTY, NEW MEXICO

ORIGINATOR: K. HAGAN  
APPROVED BY:

DRAWING CATEGORY:  
1

FIGURE

**E-1**

User: KHagan

Date: 8/16/2013



P.O. Box 4324 Houston, Texas 77210-4324 713.381.6500  
9420 West Sam Houston Parkway North Houston, Texas 77064 www.epplp.com

July 30, 2013

VIA HAND DELIVERY or CERTIFIED MAIL

SLK Properties, LLC a New Mexico Limited Liability Company  
3195 B Highway 41  
Moriarty, NM 87035

RE: Proposed Hydrostatic Water Discharge Site  
MAPL – WEP III Project, 16 & 20 Inch Line  
Tract Number: NM-SF-05  
Santa Fe County, New Mexico

Dear Mr. King,

Mid-America Pipeline Company, LLC, a Delaware limited liability company ("MAPL"), operated by Enterprise Products Operating LLC, a Texas limited liability company (collectively referred to as "Enterprise") proposes to hydrostatically test approximately 34 miles of 16 and 20 inch proposed new pipeline. The proposed pipeline will cross through Bernalillo, Sandoval, Santa Fe and Torrance Counties in New Mexico. Approximately 850,000 gallons of water will be used for this test.

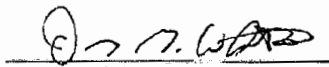
Upon completion of the test, Enterprise plans to discharge the test water onto the ground in Section 27, Township 10 North, Range 8 East, approximately 1.25 miles east of the Martin Road/Martin Lane intersection. The water will be discharged at an approximate rate of 1,500 gallons per minute into a dissipation structure of silt fence and straw bales and allowed to percolate on site. Discharge of the hydrostatic test water will be monitored by Enterprise personnel and its contractors. The test water will be discharged and tested in compliance within the guidelines of the Oil Conservation Division of the New Mexico Energy, Minerals, and Natural Resources Department. The discharge is scheduled to begin in September, upon completion of the pipeline construction and the hydrostatic testing.

The Oil Conservation Division of the New Mexico Energy, Minerals, and Natural Resources Department requires proof of landowner's consent prior to any hydrostatic water being discharged.

This letter, when executed, serves as proof of such consent to discharge test water on the particular property listed above within and/or outside Enterprise's pipeline right-of-way.

Should you have questions or require additional information, please feel free to contact me in writing at Mid-America Pipeline Company, LLC 4815 Hawkins NE Suite C-3, Albuquerque, New Mexico 87109 or by telephone at 713-392-2458.

**Enterprise Products Operating LLC**

  
James White  
Sr. Environmental Scientist  
Enterprise Products Operating LLC





Enterprise Products™

P.O. Box 4324 Houston, Texas 77210-4324 713.381 6500  
9420 West Sam Houston Parkway North Houston, Texas 77064 www.epplp.com

Your signature indicates your approval to make application for discharge permit on/across your property.

X Kam 7/31 Dated: 31 day of July, 2013.

X WTS  
Witness: \_\_\_\_\_

**APPENDIX F**  
**Public Notice**

## **PUBLIC NOTICE**

The United States Department of Transportation (USDOT) requires periodic pressurized tests on all USDOT-regulated pipelines. Enterprise Products Operating LLC (Enterprise) hereby gives notice that the following discharge permit application has been submitted to the New Mexico Oil Conservation Division (NMOCD) in accordance with Subsection B, C, E, and F of 20.6.2.3108 New Mexico Administrative Code. The local Enterprise mailing address is: Enterprise Products Operating LLC, 614 Reilly Ave., Farmington, NM 87401.

The purpose of hydrostatic (testing with water) pipeline testing is to determine the extent to which potential defects might threaten the pipeline's ability to sustain maximum allowable operation pressure. The pipeline will be filled with water, and then pressurized to a pressure higher than the standard operating pressure for a specified duration of time.

Enterprise has submitted an application for hydrostatic test water discharge that will occur on the pipeline right-of-way (ROW) and onto the adjacent property to the north of the ROW at latitude 35.055273°, longitude -106.080531° in Santa Fe County, New Mexico. The location of the discharge is approximately 4 miles northwest of Moriarty, New Mexico. To reach the discharge location from Moriarty, from the intersection of NM-41 and NM-333 E: head north on NM-41 for 0.4 miles; turn east onto Abraham's/I-40 Frontage Rd for 1.6 miles; continue to north on Country Rd A 106/ Green Rd for 1.7 miles; continue onto Country Rd 21/ King Farm Rd for 1 mile; turn left onto an unnamed road and continue for 0.5 mile; and the discharge area will be on the right. The hydrostatic test is scheduled for September 25, 2013 with discharge of the test water scheduled for October 5, 2013.

The new piping, called the Western Expansion Pipeline (WEP) III Segment 3, will be hydrostatically tested. Up to 850,000 gallons of well water obtained from the King Irrigation well and will be piped to the new pipeline. Once the test has been completed, and prior to discharge, Enterprise will collect and analyze a sample of the water obtained from the end section of the pipeline. The sample will be analyzed for water quality. Upon NMOCD concurrence that the discharge water meets the water quality standards of NMAC 20.6.2.3103, or background levels, whichever is greater, Enterprise will discharge the water in accordance with the approved discharge permit. If discharge to the ground surface is approved, the water will be released from a pipeline and discharged to the dissipation and discharge system and allowed to flow onto ground surface within the ROW and onto the adjacent property north of the ROW (approved by landowner).

If test water exceeds discharge requirements, it will first be treated using electro-coagulation to remove constituents that exceed the discharge requirements. 400-barrel storage tanks will temporarily hold the treated water while a post-treatment sample is collected and submitted for laboratory analysis. The analytical results will be sent to NMOCD for approval and upon NMOCD concurrence that the discharge water meets the water quality standards of NMAC 20.6.2.3103, or background levels, whichever is greater, Enterprise will discharge the water in accordance with the approved discharge permit.

If after this treatment process, water still exceeds discharge requirements, it will be transported from the project site in DOT-approved tanker trucks by an NMOCD-approved hauler to an NMOCD-approved waste water disposal facility.

The shallowest groundwater likely to be affected by a leak or accidental discharge is found at depths of 30 to 188 feet below grade. Total dissolved solids concentration of 2,070 milligrams per kilogram is representative of the shallow aquifer in the discharge area. Water in the King well is considered to be the background water standard for the discharge site and the surrounding area.

The notice of intent and discharge plan outlines how produced water and waste will be properly managed, including handling, storage, and final disposition. The plan also includes procedures for the proper management of leaks, accidental discharges, and spills to protect the waters of the State of New Mexico.

For additional information, to be placed on a specific mailing list for future notices, or to submit comments please contact:

Brad Jones, Environmental Engineer  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505  
Phone: 505.476.3487

The NM Energy, Minerals and Natural Resources Department will accept comments and statements of interest regarding this hydrostatic test and will provide future notices for this pipeline upon request.

## **AVISO PUBLICO**

El Departamento de Transporte de los Estados Unidos (United States Department of Transportation, USDOT) requiere hacer pruebas (presurizadas) periódicamente en toda tubería regulada por USDOT. La compañía Enterprise Products Operating, LLC (Enterprise) da aviso por este medio que la siguiente aplicación de permiso de descarga ha sido sometida al New Mexico Oil Conservation Division (NMOCD) de acuerdo con las Sub-Sección B, C, E, y F del Código Administrativo de Nuevo México (New Mexico Administrative Code, NMAC, 20.6.2.3108). La dirección de correo local de la compañía Enterprise es: Enterprise Products Operating LLC, 614 Reilly Ave., Farmington, NM 87401.

El propósito de la prueba hidro-estática (prueba con agua) en la tubería es para evaluar el potencial de defectos que puedan afectar la habilidad de la tubería de sostener la máxima presión de operación permisible. La tubería será llenada con agua, y luego presurizada a una presión mayor a la presión de operación estándar por periodo de tiempo especificado.

Enterprise ha sometido una aplicación para descargar agua de pruebas hidro-estática que ocurrirá en el área de la servidumbre de paso y sobre la propiedad adyacente hacia el norte a una latitud de 35.055273°, y una longitud de -106.080531° en el Condado de Santa Fe, Nuevo México. El lugar de la descarga está aproximadamente 4 millas al noroeste de Moriarty, Nuevo México. Para llegar al lugar de la descarga desde Moriarty, desde la intersección de NM-41 y MN-333 E: viajar hacia el norte sobre NM 41 por 0.4 millas; dar vuelta hacia el este sobre la calle lateral Abraham's Road de I-40 por 1.6 millas; continuar hacia el norte sobre Country Rd A 106/ Green Rd por 1.7 millas; continuar sobre Country Rd 21/ King Farm Rd por 1 milla; dar vuelta a la izquierda sobre una calle sin nombre y continuar por 0.5 millas; y el área de descarga estará sobre la derecha. La prueba hidro-estática está programada para Septiembre 25, 2013 con la descarga del agua de prueba programada para Octubre 30, 2013.

La nueva tubería, llamada Western Expansion Pipeline (WEP) III, Segmento 3, será probada hidro-estáticamente. Hasta 850,000 galones de agua obtenida del pozo King (King Irrigation Well) y será transportada a la tubería nueva. Una vez que la prueba se haya completado, y antes de la descarga, Enterprise obtendrá y analizará una muestra de agua obtenida del extremo de la sección de tubería. La muestra será analizada para evaluar la calidad del agua. Una vez que NMOCD concuerde que el agua de descarga cumple con los estándares de calidad de agua de NMAC 20.6.2.3103, o niveles de fondo de prueba, el que sea mayor, Enterprise descargará el agua de acuerdo con el permiso de descarga aprobado. Si descarga en la superficie del suelo es aprobado, el agua será desalojada de una tubería y el agua de prueba será descargada al sistema de descarga y permitida fluir sobre la superficie del suelo en el área de la servidumbre de paso de la tubería y sobre propiedad adyacente hacia el norte (aprobado por el dueño de la propiedad).

Si el agua de prueba excede los requisitos de descarga, será primero tratada usando electro-coagulación para remover componentes que excedan los requisitos de descarga. 400-barriles usados como tanques de almacén temporalmente guardaran el agua tratada hasta que la muestra de después de tratamiento sea obtenida y sometida para análisis de laboratorio. Los resultados analíticos serán enviados a NMOCD para ser aprobados y cuando NMOCD concuerde que el agua de descarga tiene los estándares de calidad de agua de NMAC 20.6.2.3103, o niveles de fondo de prueba, el que sea mayor, Enterprise descargará el agua de acuerdo con el permiso de descarga aprobado.

Si después de este proceso de tratamiento, agua todavía excede los requisitos de descarga, será transportada del sitio del proyecto en camiones-pipa aprobados por el departamento de transporte por un transportista aprobado por NMOCD a un lugar aprobado por NMOCD para deshacerse del agua de prueba.

El nivel freático más cercano a la superficie del suelo que posiblemente pueda ser afectado por una fuga o descarga accidental es encontrado a una profundidad de 30 a 188 pies debajo de la superficie del suelo. Una concentración total de sólidos disueltos de 2,070 miligramos por kilogramo es representativo del agua freática en el área de descarga. El agua en el pozo King es considerada el estándar de agua de fondo para la descarga del sitio y el área alrededor.

El aviso del plan de intención de descarga resume como el agua que se produzca será manejada, incluyendo su guardado y el proceso final para deshacerse del agua. El plan también incluye procesos para el manejo apropiado de fugas, descargas accidentales, y derrames para proteger las aguas del estado de Nuevo México (New Mexico).

Para información adicional, ser puesto en una lista de correo de particular a este proyecto, o para someter comentarios, favor de contactar:

Brad Jones, Environmental Engineer  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505  
Teléfono: (505) 476-3487

El Departamento de NM de Energía, Minerales y Recursos Naturales (NM Energy, Minerales and Natural Resources Department) aceptará comentarios al respecto de esta prueba hidro-estática y proporcionará avisos futuros para esta tubería en base a petición.

**APPENDIX G**  
**Electro-Coagulation Process Information**

## **Post-Hydrostatic Test Water On-Site Electrocoagulation Treatment**

### **Introduction**

The electro-coagulation (EC) process is one that uses an electrical current to coagulate organic constituents and suspended solids in water. The coagulated organics have the ability to adsorb ionic constituents which makes it possible to separate out a flocculent with the majority of suspended organics and some of the ionic constituents removed. (ITRC, 2013). At this site, it will be used to treat hydrostatic test water after the completion of testing and prior to discharge onto the ground surface.

### **EC Process**

Water will be transferred from the pipeline with a pump and hose into two 21,000-gallon closed top weir tanks to allow for consistent volumes to feed supply pumps. The water will be pumped from the weir tanks to the water treatment system tank. The hydrostatic test water will be treated with a zero toxicity bio-polymer and will be run through a quad filtration vessel containing 80, 5-micron filtration socks. Material Data Safety Sheets for any chemical or additives used are attached. The water will then be pumped through a series of holding tanks and filtering systems, and then pumped with hoses and pipes into the water storage tanks. An illustration of the areas of secondary containment, EC treatment system, and the storage tanks is shown in Figure G-1. A detailed schematic of the EC treatment and filtration system setup is shown in Figure G-2.

As the water is processed through the treatment vessel, the system is continuously monitored for water pressure, pH, nephelometric turbidity units (NTU), flow rate and residual bio-fouling to ensure system is operating within specifications. As filtration cartridges are expended, the system is transferred to the secondary filtration system while maintenance is performed on the primary system. Treated water will be discharged by hose into approximately 51 interconnected, 400 barrel storage tanks. The water will be held in the storage tanks until analytical testing is conducted. Processing of the water through the EC system is anticipated to take approximately 3 days. All processing will occur within secondary containment and will occur in the pipeline ROW. The secondary containment is described under best management practices below

Solid waste generated as part of this process consists of a synthetic filtration socks with particulate matter generated during the filtration process. As the sock becomes full, it will be manually removed from the filtration unit and placed into 42-gallon drums located within the secondary containment.

### **Post-treatment Sampling**

One composite water sample will be collected from the end of the EC treatment process for purposes of discharge approval. The sample will be a composite sample collected from the following intervals/tanks: 1,000 gallons (1<sup>st</sup> tank); 201,600 gallons (12<sup>th</sup> tank); 420,000 gallons (25<sup>th</sup> tank); 638,400 gallons (38<sup>th</sup> tank); and 850,000 gallons (51<sup>st</sup> tank). The sample will be submitted for laboratory analysis, as described in *item j*. Analytical testing is anticipated to take approximately 4 days to receive the results.

An additional four water samples will be collected from discharge point of the EC treatment process (prior to tanks). These samples will be collected to provide NMOCD with additional information on the efficacy of Industrial Dewatering International (IDI)'s newly presented technology. Samples will be collected at the following intervals: 1,000 gallons; 212,500 gallons; 425,000 gallon; and 637,000 gallons. Samples will be submitted for laboratory analysis, as



described in *item j*. Analytical testing is anticipated to take approximately 4 days to receive the results.

Once the results have been received, they will be forwarded to the NMOCD. Upon NMOCD concurrence that the discharge water meets the water quality standards of NMAC 20.6.2.3103, or background levels, whichever is greater, Enterprise will discharge the water as described in *item h*.

If the results do not meet the required water quality standards, the water will be pumped from the storage tanks into water trucks, using a hose or temporary piping. Transportation and disposal of the water is described in *item k*.

Any solids generated during the EC process will be managed as described in *item k*.

### **Best management practices**

Secondary containment will be designed to hold 1 1/3 of the total volume of the 51 water storage tanks. It will be comprised of hay or dirt berms approximately 4 feet high with plastic lining the bottom of the containment area and draped over the sides of the containment. The approximate dimensions of the containment are 327 feet long by 125 feet wide.

Each individual vessel of the EC treatment system will have its own secondary containment. The storage tanks and EC treatment system will be contained within a single containment area located in the ROW.

If the test water needs to be transferred to water trucks for disposal, drip pans will be placed under hose connections and valves to prevent leaks from reaching the ground surface. Valves will be present on the water tanks and at various transfer areas to stop the flow of water if needed. Personnel will be present during transfer operations to close valves in case of leaks. Personnel will be located in the surrounding area to conduct pipeline construction and maintenance activities and can help prevent vandalism to the water tanks. Visual inspections will be conducted while the hydrostatic test water is stored in the storage tanks to ensure the absence of leaks and damage due to vandalism.

Approximately five 42-gallon drums will be used to store the spent filtration socks. The drums will be sealed and will be left inside the secondary containment area, until the EC process is complete and the solids are transported off site for disposal.

### **Timeline**

The anticipated timeline if post treated water is approved for discharge to the ground surface:

	<b>Activity</b>	<b>Duration</b>	<b>Cumulative Days</b>
<b>1</b>	Tested water in pipeline does not meet standards for discharge to the ground surface	0	0
<b>2</b>	Secondary containment constructed and tanks placed inside. IDW mobilizes to site and sets up system	7	7
<b>3</b>	Treatment of water through EC system	3	10
<b>4</b>	Collection and analysis of post – treatment water samples	4	14
<b>5</b>	EC system removed	1	15
<b>6</b>	Discharge approved by NMOCD	1	16

	Activity	Duration	Cumulative Days
7	Test water discharged to ground surface and drummed solids removed from disposal area	2	18
8	Empty storage tanks removed and secondary containment dismantled	7	25

The anticipated timeline if post treated water needs to be hauled off for disposal:

	Activity	Duration	Cumulative Days
1	Tested water in pipeline does not meet standards for discharge to the ground surface	0	0
2	Secondary containment constructed and tanks placed inside. IDW mobilizes to site and sets up system	7	7
3	Treatment of water through EC system	3	10
4	Collection and analysis of post – treatment water samples	4	14
5	EC system removed	1	15
6	Test water cannot be discharged	0	15
7	Test water is transferred into water trucks and hauled offsite for disposal. Drummed solids removed for disposal	3	18
8	Empty storage tanks removed and secondary containment dismantled	7	25

### Closure Plan

Upon completion of the treatment, the EC system will be removed from the site. Once the water in the storage tanks has been removed, the storage tanks will be dismantled and removed from the site. The drummed solids will be removed for disposal and the secondary containment will be dismantled. The site will be returned to preconstruction contours, as was present prior to hydrostatic test discharge.

### References

Interstate Technology Regulatory Council (ITRC), 2013, Technology Overview as Part of a Web-based Technical and Regulatory Guidance, Electrocoagulation, [http://www.itrcweb.org/miningwaste-guidance/to\\_electrocoagulation.htm](http://www.itrcweb.org/miningwaste-guidance/to_electrocoagulation.htm).



Date: 7/24/2012  
Revision: 00

## Material Safety Data Sheet

### HaloKlear: DBP-2100

#### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** HaloSource, Inc.  
**Corporate Address:** 1631 220<sup>th</sup> St. SE, Suite 100, Bothell, WA 98021  
**Manufacturer's Telephone:** (425) 881-6464 (Monday-Friday, 8AM-5PM PDT)  
**Emergency Telephone (24 Hours):** 800-424-9300 CHEMTREC (Domestic, North America)  
703-527-3887 CHEMTREC (International, collect calls accepted)  
**Material/Trade/Product Name:** HaloKlear: DBP-2100  
**Synonyms:** Poly X Socks  
**Chemical Name:** Proprietary  
**Chemical Formula:** Proprietary  
**CAS No.:** Proprietary  
**EPA Registration #:** Not applicable  
**Product Use:** Flocculant

#### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

CAS NO.	COMPONENT	%	OSHA HAZARDOUS?
Trade Secret	Trade Secret	Trade Secret	YES

NOTE: See Section 8 for permissible exposure limits.

#### SECTION 3: HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

Off-white to tan, odorless powder.

May cause irritation to eyes and respiratory tract. May cause drying or chapping or skin.

**WARNING!** Can contain sufficient fines to cause a combustible dust explosion. Product will burn when in contact with a flame. See Section 5 Fire Fighting Measures for more information.

##### POTENTIAL HEALTH EFFECTS

**EYE:** Dry powder may cause foreign body irritation in some individuals.

**SKIN:** Prolonged contact with the dry powder may cause drying or chapping.

**INHALATION:** Hygroscopic properties of the product can form a paste or gel in the airway. Inhalation of dust may cause respiratory tract irritation. Excessive inhalation of dust may cause coughing and sneezing.

**INGESTION:** Not toxic if swallowed (less than a mouthful) based on available information.

**CHRONIC EXPOSURE/CARCINOGENICITY:** None of the components present in this material at concentrations of equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

**AGGRAVATION OF PRE-EXISTING CONDITIONS:** None known.

**POTENTIAL ENVIRONMENTAL EFFECTS:** Contains no substances known to be hazardous to the environment.

## **SECTION 4: FIRST AID MEASURES**

### **FIRST AID PROCEDURES**

**EYE CONTACT:** Remove contact lenses (if applicable), flush with water for 15 minutes. Call a physician.

**SKIN CONTACT:** Cleansing the skin after exposure is advisable.

**INHALATION:** If large amounts are inhaled, remove to fresh air and consult a physician.

**INGESTION:** Consult a physician if necessary.

**NOTE TO PHYSICIANS:** None.

## **SECTION 5: FIRE FIGHTING MEASURES**

**FLASH POINT:** Not applicable

**UPPER FLAMMABLE LIMIT:** Not available

**FLAMMABILITY CLASS (OSHA):** Not applicable

**AUTOIGNITION TEMPERATURE:** Not available

**LOWER FLAMMABLE LIMIT:** Not available

**FLAME PROPAGATION/BURNING RATE:** Not available

**UNIQUE FIRE PROPERTIES:** Combustible dust which can contain sufficient fines to cause a combustible dust explosion.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, carbon monoxide.

**EXTINGUISHING MEDIA:** Water, dry chemical, carbon dioxide.

**PROTECTION OF FIREFIGHTERS:** Treat as a "Class A" fire. Product will burn when in contact with a flame. Self extinguishers when ignition source is removed. Tends to smolder. As in any fire, wear self-contained breathing apparatus pressure-demand, and full protective gear.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**PERSONAL PROTECTIVE EQUIPMENT:** See Section 8 (Personal Protective Equipment).

**ENVIRONMENTAL PRECAUTIONS:** None known.

**METHODS FOR CLEANING UP:** Wet material on walking surfaces will be extremely slipper. Avoid dust formation. Use equipment designed specifically for combustible dust. Take precautionary measures against static discharges.

**SECTION 7: HANDLING AND STORAGE****SAFE HANDLING RECOMMENDATIONS**

**VENTILATION:** Avoid dust formation. Provide appropriate exhaust ventilation in places where dust is formed.

**FIRE PREVENTION:** Product may form combustible dust-air mixtures. Keep away from heat, flames, sparks, and other ignition sources. Avoid emptying package in or near flammable vapors. Static charges may cause flash fire.

**SPECIAL HANDLING REQUIREMENTS:** Remove material from eyes, skin and clothing.

**SAFE STORAGE RECOMMENDATIONS**

**CONTAINMENT:** No special containment needed.

**STORAGE ROOM RECOMMENDATIONS:** Store in a cool, dry, well-ventilated area away from direct heat.

**INCOMPATIBLE MATERIALS:** Strong oxidizing agents.

**STORAGE CONDITIONS:** Store in cool, dry place. Keep container closed when not in use; keep out of the reach of children.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits in this section.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**EYE/FACE PROTECTION:** This product does not cause significant eye irritation or eye toxicity requiring special protection. Where there is significant potential for eye contact, wear chemical goggles and have eye flushing equipment available.

**SKIN PROTECTION:** Although this product does not present a significant skin concern, minimizes skin contamination by following good industrial practice.

**HAND PROTECTION:** Chemical resistant gloves are recommended to minimize potential irritation from handling.

**RESPIRATORY PROTECTION:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Respirator use is not required for this product.

**GOOD HYGIENE/WORK PRACTICES:** Always follow good hygiene/work practices by avoiding vapors or mists and contact with eyes and skin. Thoroughly wash hands after handling and before eating or drinking. Always wear the appropriate PPE when repairing or performing maintenance on contaminated equipment.

**EXPOSURE GUIDELINES**

PERMISSIBLE EXPOSURE LIMITS			
INGREDIENT	OSHA	WISHA	ACGIH (TLV)

CAS NO.	TWA	STEL	TWA	STEL	TWA	STEL
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**COLOR:** Off white to tan  
**PHYSICAL FORM:** Solid, powder  
**pH:** Approximately neutral (1% solution)  
**VAPOR DENSITY:** Not known  
**MELTING POINT:** Not known  
**SOLUBILITY IN WATER:** Fully soluble

**SHAPE:** Powder  
**ODOR:** Odorless  
**VAPOR PRESSURE:** Not known  
**BOILING POINT:** Not known  
**FREEZING POINT:** Not known  
**SPECIFIC GRAVITY OR DENSITY:** Not known

*NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Values should not be construed as a guaranteed analysis of any specific lot or as specifications.*

**SECTION 10: STABILITY AND REACTIVITY**

**CHEMICAL STABILITY:** Stable under recommended storage conditions

**CONDITIONS TO AVOID:** Avoid dust formation

**MATERIALS TO AVOID (INCOMPATIBILITY):** Strong oxidizing agents

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide

**HAZARDOUS POLYMERIZATION:** Will not occur

**SECTION 11: TOXICOLOGICAL INFORMATION**

**ORAL LD<sub>50</sub> (rat):** >5,000 mg/kg

**DERMAL LD<sub>50</sub> (rabbit):** Not available

**DERMAL LD<sub>50</sub> (rat):** Not available

**SKIN IRRITATION:** Non-irritating (rabbit)

**EYE IRRITATION:** Non-irritating (rabbit)

**SKIN SENSITIZATION:** No skin allergy observed in guinea pig following repeated skin exposure

**ADDITIONAL INFORMATION:** The dry powder may cause foreign body irritation in some individuals. Prolonged contact with the dry powder may cause drying or chapping of the skin. Excessive inhalation of dust may be annoying and can mechanically impede respiration. Due to the hygroscopic properties, they can form a paste or gel in the airway.

**SECTION 12: ECOLOGICAL INFORMATION**

**ECOTOXICITY:** Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**MOBILITY:** Not available

**PERSISTENCE AND DEGRADABILITY:** This product is biodegradable.

**BIOACCUMULATIVE POTENTIAL:** Inherently biodegradable.

**ADDITIONAL INFORMATION:**

- 96 Hour Acute Survival
  - Rainbow Trout: LC<sub>50</sub> 491 mg/L, LC<sub>25</sub> 347 mg/L
  - Fathead Minnow: LC<sub>50</sub> 1110 mg/L, LC<sub>25</sub> 678 mg/L
- 7-Day Chronic Survival and Growth
  - Rainbow Trout: LC<sub>50</sub> 510 mg/L, LC<sub>25</sub> 390 mg/L
  - Fathead Minnow: LC<sub>50</sub> 605 mg/L, LC<sub>25</sub> 443 mg/L
  - Ceriodaphnia Dubia: LC<sub>50</sub> 352 mg/L, LC<sub>25</sub> 289 mg/L
- Rainbow Trout (Biomass): LC<sub>50</sub> 386 mg/L, LC<sub>25</sub> 262 mg/L
- Fathead Minnow (Biomass): LC<sub>50</sub> 505 mg/L, LC<sub>25</sub> 256 mg/L

### SECTION 13: DISPOSAL CONSIDERATIONS

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

*NOTE: Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.*

### SECTION 14: TRANSPORT INFORMATION

**U.S. DEPARTMENT OF TRANSPORTATION (DOT):**

Proper Shipping Name:	Not Regulated
Hazard Class:	Not Regulated
Identification Number (UN Number):	Not Regulated
Packing Group (PG):	Not Regulated

### SECTION 15: REGULATORY INFORMATION

**TSCA STATUS:** Component(s) listed

**CERCLA REPORTABLE QUANTITY (RQ):**

CHEMICAL NAME	RQ
Not applicable	Not applicable

**SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (EHS):**



CHEMICAL NAME	TPQ	RQ
Not applicable	Not applicable	Not applicable

**SARA TITLE III SECTION 311/312 HAZARD CATEGORIES:** Does this product/material meet the definition of the following hazard classes according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of SARA Title III?

ACUTE HEALTH HAZARD	CHRONIC HEALTH HAZARD	FIRE HAZARD	REACTIVE HAZARD	SUDDEN RELEASE OF PRESSURE
YES	NO	YES	NO	NO

**SARA TITLE III SECTION 313 TOXIC CHEMICALS INFORMATION:**

CHEMICAL NAME	CAS NO.	CONCENTRATION (%)
Not applicable	Not applicable	Not applicable

**CALIFORNIA PROPOSITION 65:** The following chemical(s) is/are known to the state of California to cause cancer or reproductive toxicity:

CHEMICAL NAME	CAS NO.	CONCENTRATION (%)
Not applicable	Not applicable	Not applicable

**SECTION 16: OTHER INFORMATION**

**REVISION INFORMATION:**

MSDS sections(s) changed since last revision of document:

- None, this is a new MSDS.

**DISCLAIMER:**

\*\*\*\*\*  
The above information is based upon information HaloSource, Inc. believes to be reliable and is supplied for informational purposes only. HaloSource, Inc. disclaims any liability for damage which results from the use of the above information and nothing contained therein shall constitute a guarantee, warranty (including fitness for a particular purpose) or representation with respect to the accuracy or completeness of the data, the product described or their use for any specific purpose even if that purpose is known to HaloSource, Inc. The final determination of the suitability of the information, the manner of use of the information or product and potential infringement is the sole responsibility of the user.  
\*\*\*\*\*

**MSDS PREPARED BY:** Jeremy Heath, EH&S Manager



Date: 9/27/2011

Revision: 00

**Material Safety Data Sheet***HaloKlear: Gel-Floc***SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**Manufacturer's Name:** HaloSource, Inc.  
**Corporate Address:** 1631 220<sup>th</sup> St. SE, Suite 100, Bothell, WA 98021  
**Manufacturer's Telephone:** (425) 881-6464 (Monday-Friday, 8AM-5PM PDT)  
**Emergency Telephone (24 Hours):** 800-424-9300 CHEMTREC (Domestic, North America)  
703-527-3887 CHEMTREC (International, collect calls accepted)  
**Material/Trade/Product Name:** **HaloKlear: Gel-Floc MB**  
**Synonyms:** Chitosan Lactate  
**Chemical Name:** Chitosan, 2-hydroxypropanoate (salt)  
**Chemical Formula:** Not available  
**CAS No.:** 66267-50-3  
**Product Use:** Flocculates soil contamination in storm water.

**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

CAS NO.	HAZARDOUS INGREDIENT (S)	%	OSHA HAZARDOUS?
Trade Secret	Trade Secret	85 – 95	YES
Trade Secret	Trade Secret	15 – 5	YES

NOTE: See Section 8 for permissible exposure limits.

**SECTION 3: HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW**

A fine, off-white powder with no odor.

This material/product may cause eye or skin irritation.

**POTENTIAL HEALTH EFFECTS**

**EYE:** May cause mechanical irritation. Will tend to form film on the surface of the eye causing blurred vision.

**SKIN:** Possible skin irritation or rash.

**INHALATION:** May aggravate pre-existing respiratory conditions or allergies. It may accumulate on linings of the nose and lungs resulting in dryness & coughing.

**INGESTION:** While it is not likely to be hazardous by ingestion, it may start dissolving and form a film on mucous membranes.

**CHRONIC EXPOSURE/CARCINOGENICITY:** Not known.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE:** May cause mechanical irritation. Will tend to form film on the surface of the eye causing blurred vision. Skin irritation. It may accumulate on linings of the nose and lungs resulting in dryness & coughing. May start dissolving and form a film on mucous membranes.

**AGGRAVATION OF PRE-EXISTING CONDITIONS:** May aggravate pre-existing respiratory conditions or allergies.

**POTENTIAL ENVIRONMENTAL EFFECTS:** Avoid water if material is spilled; water will dissolve chitosan lactate forming a thick viscous solution or gelatinous mass.

#### **SECTION 4: FIRST AID MEASURES**

##### **FIRST AID PROCEDURES**

**EYE CONTACT:** Remove contact lenses (when applicable) and flush eyes with water for 15 minutes. Get medical attention if irritation persists.

**SKIN CONTACT:** Wash with soap and water. Get medical attention if irritation develops or persists.

**INHALATION:** If exposed to excessive levels of dust, remove to fresh air and get medical attention if cough or other symptoms develop.

**INGESTION:** Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give large quantities of water. If available give several glasses of milk. Call a physician or poison control center immediately.

**NOTE TO PHYSICIANS:** None.

#### **SECTION 5: FIRE FIGHTING MEASURES**

**FLASH POINT:** Not available

**UPPER FLAMMABLE LIMIT:** Not available

**FLAMMABILITY CLASS (OSHA):** Not applicable

**AUTOIGNITION TEMPERATURE:** Not available

**LOWER FLAMMABLE LIMIT:** Not available

**FLAME PROPAGATION/BURNING RATE:** Not available

**UNIQUE FIRE PROPERTIES:** Keep away from oxidizing agents and avoid open flames. Product may ignite at temperatures in excess of 400°F. Depending on moisture content and particle size, airborne dust of Chitosan lactate might explode in the presence of an ignition source. It is comparable to flour and wood dust.

**HAZARDOUS COMBUSTION PRODUCTS:** None known

**EXTINGUISHING MEDIA:** Water spray, CO<sub>2</sub> (carbon dioxide), foam or dry chemical.

**PROTECTION OF FIREFIGHTERS:** Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coat, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Water may be used to keep fire-exposed containers cool until fire is out.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**PERSONAL PROTECTIVE EQUIPMENT:** See Section 8 (Personal Protective Equipment).

**ENVIRONMENTAL PRECAUTIONS:** AVOID WATER; water will dissolve chitosan lactate forming a thick viscous solution or gelatinous mass.

**METHODS FOR CLEANING UP:** The material may be vacuumed or collected for recovery or disposal.

## SECTION 7: HANDLING AND STORAGE

### SAFE HANDLING RECOMMENDATIONS

**VENTILATION:** Use with adequate ventilation.

**FIRE PREVENTION:** No special requirements.

**SPECIAL HANDLING REQUIREMENTS:** None.

### SAFE STORAGE RECOMMENDATIONS

**CONTAINMENT:** Keep container closed when not in use.

**STORAGE ROOM RECOMMENDATIONS:** Store in cool, dry areas and away from incompatible substances.

**INCOMPATIBLE MATERIALS:** Strong oxidizing agents.

**STORAGE CONDITIONS:** Store in cool, dry areas and away from incompatible substances.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** No special ventilation is required. None required under normal conditions of use.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**EYE/FACE PROTECTION:** For operations where eye contact can occur, wear safety glasses.

**SKIN PROTECTION:** For operations where skin contact can occur, wear impervious rubber or neoprene apron.

**HAND PROTECTION:** For operations where hand contact can occur, wear impervious rubber or neoprene gloves.

**RESPIRATORY PROTECTION:** If dust is generated, a dust mask may be needed. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**GOOD HYGIENE/WORK PRACTICES:** Always follow good hygiene/work practices by avoiding vapors or mists and contact with eyes and skin. Thoroughly wash hands after handling and before eating or drinking. Always wear the appropriate PPE when repairing or performing maintenance on contaminated equipment.

### EXPOSURE GUIDELINES

PERMISSIBLE EXPOSURE LIMITS						
INGREDIENT CAS NO.	OSHA		WISHA		ACGIH (TLV)	
	TWA	STEL	TWA	STEL	TWA	STEL

Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****COLOR:** Off-white.**PHYSICAL FORM:** Fine powder.**pH:** Not available**VAPOR DENSITY:** Not available**MELTING POINT:** Not available**SOLUBILITY IN WATER:** Soluble**SHAPE:** Fine powder.**ODOR:** None**VAPOR PRESSURE:** Not available**BOILING POINT:** Not available**FREEZING POINT:** Not available**SPECIFIC GRAVITY OR DENSITY:** Not available

*NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Values should not be construed as a guaranteed analysis of any specific lot or as specifications.*

**SECTION 10: STABILITY AND REACTIVITY****CHEMICAL STABILITY:** Stable.**CONDITIONS TO AVOID:** None known.**MATERIALS TO AVOID (INCOMPATIBILITY):** Strong oxidizing agents.**HAZARDOUS DECOMPOSITION PRODUCTS:** None known.**HAZARDOUS POLYMERIZATION:** Not known.**SECTION 11: TOXICOLOGICAL INFORMATION****ORAL LD<sub>50</sub> (mice):** >10g/kg**DERMAL LD<sub>50</sub> (rabbit):** Not available.**SKIN IRRITATION:** Not available.**EYE IRRITATION:** Not available.**SKIN SENSITIZATION:** Not available.**ADDITIONAL INFORMATION:** Not available.**SECTION 12: ECOLOGICAL INFORMATION****ECOTOXICITY (in water):**Acute Toxicity

- Daphnia: LC50 – 135 mg/L
- Daphnia: LC25 – Not Calculable
- Fathead Minnows: LC50 – 22.8 mg/L
- Fathead Minnows: LC25 – 16.9 mg/L



- Rainbow Trout: LC50 – 6.4 mg/L
- Rainbow Trout: LC25 – 4.4 mg/L

Chronic Toxicity

- Rainbow Trout: LC50 (survival) – 5.3 mg/L, 7 days
- Rainbow Trout: LC25 (survival) – 4.8 mg/L, 7 days
- Rainbow Trout: EC25 (biomass) – 3.5 mg/L, 7 days
- Fathead Minnows: LC50 (survival) – 25.4 mg/L, 7 days
- Fathead Minnows: LC25 (survival) – Not Calculable
- Fathead Minnows: EC25 (biomass) – 13.9 mg/L, 7 days

**MOBILITY:** Not available.

**PERSISTENCE AND DEGRADABILITY:** Not available.

**BIOACCUMULATIVE POTENTIAL:** Not available.

**ADDITIONAL INFORMATION:** Not available.

**SECTION 13: DISPOSAL CONSIDERATIONS**

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

*NOTE: Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.*

**SECTION 14: TRANSPORT INFORMATION**

**U.S. DEPARTMENT OF TRANSPORTATION (DOT):**

Proper Shipping Name:	Not Regulated
Hazard Class:	Not Regulated
Identification Number (UN Number):	Not Regulated
Packing Group (PG):	Not Regulated

**SECTION 15: REGULATORY INFORMATION**

**TSCA STATUS:** Listed

**CERCLA REPORTABLE QUANTITY (RQ):**

CHEMICAL NAME	RQ
Not applicable	Not applicable

**SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (EHS):**

CHEMICAL NAME	TPQ	RQ
---------------	-----	----

Not applicable	Not applicable	Not applicable
----------------	----------------	----------------

**SARA TITLE III SECTION 311/312 HAZARD CATEGORIES:** Does this product/material meet the definition of the following hazard classes according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of SARA Title III?

ACUTE HEALTH HAZARD	CHRONIC HEALTH HAZARD	FIRE HAZARD	REACTIVE HAZARD	SUDDEN RELEASE OF PRESSURE
YES	NO	NO	NO	NO

**SARA TITLE III SECTION 313 TOXIC CHEMICALS INFORMATION:**

CHEMICAL NAME	CAS NO.	CONCENTRATION (%)
Not applicable	Not applicable	Not applicable

**CALIFORNIA PROPOSITION 65:** The following chemical(s) is/are known to the state of California to cause cancer or reproductive toxicity:

CHEMICAL NAME	CAS NO.	CONCENTRATION (%)
Not applicable	Not applicable	Not applicable

**SECTION 16: OTHER INFORMATION**

**REVISION INFORMATION:**

MSDS sections(s) changed since last revision of document:

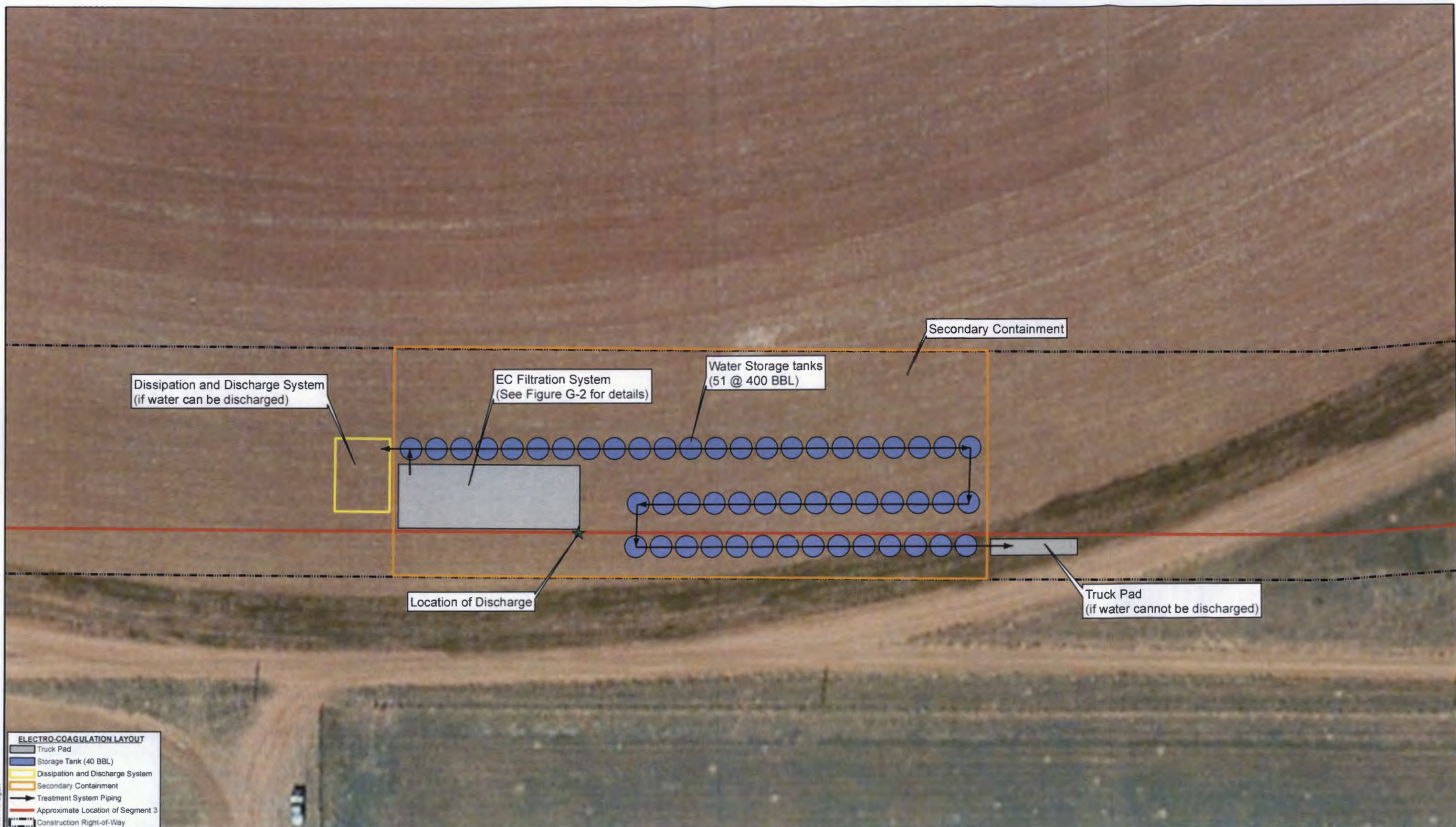
- None, this is a new MSDS.

**DISCLAIMER:**

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\*\*\*\*\*

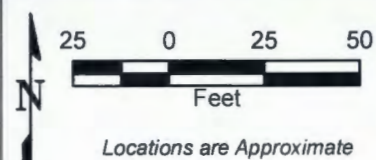
**MSDS PREPARED BY:** Jeremy Heath, EH&S Manager





Source: ESRI World Imagery, ESRI, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community. Date of image: 03/23/2011  
 SPREAD3\_IFC\_8470SEG3B\_060313\_CL.shp, SPREAD3\_IFC\_8470SEG3\_060313\_CROW.shp  
 provided by JFC Engineers & Surveyors on June 18, 2013

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PROJECT NO.: 134288  
 DRAWN: AUG 2013  
 DRAWN BY: KFH  
 CHECKED BY: ES  
 FILE NAME:  
 Seg3\_FigureG1.mxd

**ELECTRO-COAGULATION TREATMENT AND  
 DISCHARGE LOCATION, WEP III SEGMENT 3**

ENTERPRISE PRODUCTS OPERATING LLC  
 SANTA FE COUNTY, NEW MEXICO

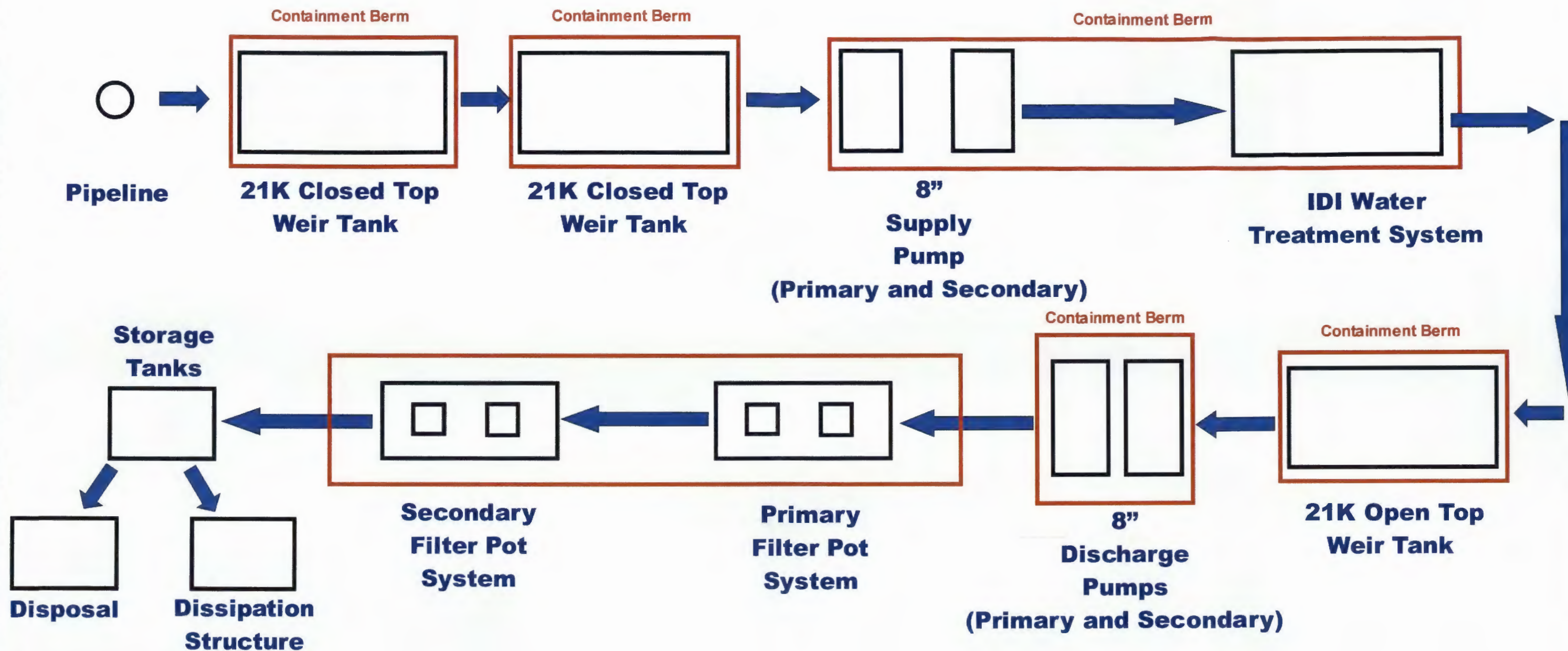
ORIGINATOR: K. HAGAN  
 APPROVED BY: *KS 8-28-13*

DRAWING CATEGORY:  
 1

FIGURE

**G-1**





Source: IDI, Process Diagram, Hydrostatic Pipeline Water Filtration, Enterprise Products, dated 07/16/13.

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PROJECT NO.: 134288	PROCESS DIAGRAM ELECTRO-COAGULATION FILTRATION SYSTEM		FIGURE  <b>G-2</b>
DRAWN: AUG 2013	ENTERPRISE PRODUCTS OPERATING LLC SANTA FE COUNTY, NEW MEXICO		
DRAWN BY: KFH			
CHECKED BY: ES			
FILE NAME: Seg3_FigureG2.mxd			
	ORIGINATOR: K. HAGAN	DRAWING CATEGORY:	
	APPROVED BY: <i>KJS 8-28-13</i>	1	

**APPENDIX H**  
**King Well Analytical Data**





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

May 08, 2013

Kay Lambert  
HRL Compliance Solutions  
2385 F 1/2 Road  
Grand Junction, CO 81505  
TEL: (970) 243-3271  
FAX:

RE: Enterprise WEP III Water Sampling

OrderNo.: 1304515

Dear Kay Lambert:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/11/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1304515

Date Reported: 5/8/2013

CLIENT: HRL Compliance Solutions

Client Sample ID: Bill King Well

Project: Enterprise WEP III Water Sampling

Collection Date: 4/11/2013 2:30:00 PM

Lab ID: 1304515-001

Matrix: AQUEOUS

Received Date: 4/11/2013 4:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8011/504.1: EDB</b>						Analyst: LRW
1,2-Dibromoethane	ND	0.010		µg/L	1	4/15/2013 8:23:57 PM
<b>EPA METHOD 8082: PCB'S</b>						Analyst: SCC
Aroclor 1016	ND	1.0		µg/L	1	4/16/2013 10:16:44 PM
Aroclor 1221	ND	1.0		µg/L	1	4/16/2013 10:16:44 PM
Aroclor 1232	ND	1.0		µg/L	1	4/16/2013 10:16:44 PM
Aroclor 1242	ND	1.0		µg/L	1	4/16/2013 10:16:44 PM
Aroclor 1248	ND	1.0		µg/L	1	4/16/2013 10:16:44 PM
Aroclor 1254	ND	1.0		µg/L	1	4/16/2013 10:16:44 PM
Aroclor 1260	ND	1.0		µg/L	1	4/16/2013 10:16:44 PM
Surr: Decachlorobiphenyl	107	23.9-124		%REC	1	4/16/2013 10:16:44 PM
Surr: Tetrachloro-m-xylene	76.4	28.1-139		%REC	1	4/16/2013 10:16:44 PM
<b>EPA METHOD 8310: PAHS</b>						Analyst: SCC
Naphthalene	ND	2.0		µg/L	1	4/17/2013 1:48:48 AM
1-Methylnaphthalene	ND	2.0		µg/L	1	4/17/2013 1:48:48 AM
2-Methylnaphthalene	ND	2.0		µg/L	1	4/17/2013 1:48:48 AM
Acenaphthylene	ND	2.5		µg/L	1	4/17/2013 1:48:48 AM
Acenaphthene	ND	5.0		µg/L	1	4/17/2013 1:48:48 AM
Fluorene	ND	0.80		µg/L	1	4/17/2013 1:48:48 AM
Phenanthrene	ND	0.60		µg/L	1	4/17/2013 1:48:48 AM
Anthracene	ND	0.60		µg/L	1	4/17/2013 1:48:48 AM
Fluoranthene	ND	0.30		µg/L	1	4/17/2013 1:48:48 AM
Pyrene	ND	0.30		µg/L	1	4/17/2013 1:48:48 AM
Benz(a)anthracene	ND	0.070		µg/L	1	4/17/2013 1:48:48 AM
Chrysene	ND	0.20		µg/L	1	4/17/2013 1:48:48 AM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	4/17/2013 1:48:48 AM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	4/17/2013 1:48:48 AM
Benzo(a)pyrene	ND	0.070		µg/L	1	4/17/2013 1:48:48 AM
Dibenz(a,h)anthracene	ND	0.12		µg/L	1	4/17/2013 1:48:48 AM
Benzo(g,h,i)perylene	ND	0.12		µg/L	1	4/17/2013 1:48:48 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	4/17/2013 1:48:48 AM
Surr: Benzo(e)pyrene	72.9	46.4-106		%REC	1	4/17/2013 1:48:48 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Fluoride	0.39	0.10		mg/L	1	4/12/2013 10:53:57 AM
Chloride	350	10		mg/L	20	4/12/2013 11:31:11 AM
Nitrogen, Nitrate (As N)	2.5	0.10		mg/L	1	4/12/2013 10:53:57 AM
Sulfate	980	10		mg/L	20	4/12/2013 11:31:11 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: JLF
Aluminum	ND	0.020		mg/L	1	4/16/2013 7:19:14 PM
Barium	0.0094	0.0020		mg/L	1	4/16/2013 7:19:14 PM
Boron	0.15	0.040		mg/L	1	4/16/2013 7:19:14 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** HRL Compliance Solutions**Client Sample ID:** Bill King Well**Project:** Enterprise WEP III Water Sampling**Collection Date:** 4/11/2013 2:30:00 PM**Lab ID:** 1304515-001**Matrix:** AQUEOUS**Received Date:** 4/11/2013 4:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: JLF
Cadmium	ND	0.0020		mg/L	1	4/16/2013 7:19:14 PM
Chromium	ND	0.0060		mg/L	1	4/17/2013 1:27:22 PM
Cobalt	ND	0.0060		mg/L	1	4/16/2013 7:19:14 PM
Copper	ND	0.0060		mg/L	1	4/16/2013 7:19:14 PM
Iron	0.022	0.020		mg/L	1	4/16/2013 7:19:14 PM
Lead	ND	0.0050		mg/L	1	4/17/2013 1:27:22 PM
Manganese	0.0026	0.0020		mg/L	1	4/17/2013 1:27:22 PM
Molybdenum	ND	0.0080		mg/L	1	4/16/2013 7:19:14 PM
Nickel	ND	0.010		mg/L	1	4/16/2013 7:19:14 PM
Silver	ND	0.0050		mg/L	1	4/16/2013 7:19:14 PM
Zinc	0.012	0.010		mg/L	1	4/16/2013 7:19:14 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: DBD
Arsenic	0.0011	0.0010		mg/L	1	4/29/2013 3:24:35 PM
Selenium	0.0049	0.0010		mg/L	1	4/29/2013 3:24:35 PM
Uranium	0.0061	0.0010		mg/L	1	4/29/2013 3:24:35 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: TES
Mercury	ND	0.00020		mg/L	1	4/15/2013 5:39:42 PM
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: CWS
Benzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Toluene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Ethylbenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Naphthalene	ND	2.0		µg/L	1	4/17/2013 3:02:36 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/17/2013 3:02:36 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/17/2013 3:02:36 AM
Acetone	ND	10		µg/L	1	4/17/2013 3:02:36 AM
Bromobenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Bromodichloromethane	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Bromoform	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Bromomethane	ND	3.0		µg/L	1	4/17/2013 3:02:36 AM
2-Butanone	ND	10		µg/L	1	4/17/2013 3:02:36 AM
Carbon disulfide	ND	10		µg/L	1	4/17/2013 3:02:36 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Chlorobenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Chloroethane	ND	2.0		µg/L	1	4/17/2013 3:02:36 AM
Chloroform	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

## Analytical Report

Lab Order 1304515

Date Reported: 5/8/2013

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HRL Compliance Solutions

Client Sample ID: Bill King Well

Project: Enterprise WEP III Water Sampling

Collection Date: 4/11/2013 2:30:00 PM

Lab ID: 1304515-001

Matrix: AQUEOUS

Received Date: 4/11/2013 4:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: CWS
Chloromethane	ND	3.0		µg/L	1	4/17/2013 3:02:36 AM
2-Chlorotoluene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
4-Chlorotoluene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
cis-1,2-DCE	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/17/2013 3:02:36 AM
Dibromochloromethane	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Dibromomethane	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/17/2013 3:02:36 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
2-Hexanone	ND	10		µg/L	1	4/17/2013 3:02:36 AM
Isopropylbenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/17/2013 3:02:36 AM
Methylene Chloride	ND	3.0		µg/L	1	4/17/2013 3:02:36 AM
n-Butylbenzene	ND	3.0		µg/L	1	4/17/2013 3:02:36 AM
n-Propylbenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
sec-Butylbenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Styrene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
tert-Butylbenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/17/2013 3:02:36 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
trans-1,2-DCE	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/17/2013 3:02:36 AM
Vinyl chloride	ND	1.0		µg/L	1	4/17/2013 3:02:36 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**Lab Order **1304515**Date Reported: **5/8/2013****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** HRL Compliance Solutions**Client Sample ID:** Bill King Well**Project:** Enterprise WEP III Water Sampling**Collection Date:** 4/11/2013 2:30:00 PM**Lab ID:** 1304515-001**Matrix:** AQUEOUS**Received Date:** 4/11/2013 4:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: <b>CWS</b>
Xylenes, Total	ND	1.5		µg/L	1	4/17/2013 3:02:36 AM
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%REC	1	4/17/2013 3:02:36 AM
Surr: 4-Bromofluorobenzene	97.7	69.5-130		%REC	1	4/17/2013 3:02:36 AM
Surr: Dibromofluoromethane	103	70-130		%REC	1	4/17/2013 3:02:36 AM
Surr: Toluene-d8	97.3	70-130		%REC	1	4/17/2013 3:02:36 AM
<b>TOTAL PHENOLICS BY SW-846 9067</b>						Analyst: <b>SCC</b>
Phenolics, Total Recoverable	ND	2.5		µg/L	1	4/15/2013
<b>SM4500-H+B: PH</b>						Analyst: <b>JML</b>
pH	7.61	1.68	H	pH units	1	4/12/2013 4:36:38 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	2070	20.0	*	mg/L	1	4/16/2013 4:33:00 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits



LAB FEDERAL ID#: <b>ID00013</b>		LAB SAMPLE NUMBER: <b>130416028-001</b>	
DATE RECEIVED: <b>4/16/2013</b>		DATE REPORTED BY LAB: <b>4/29/2013</b>	
COMPLIANCE SAMPLE: <b>YES</b>		REPLACEMENT SAMPLE: <b>NO</b>	
COLLECTION DATE: <b>4/11/2013</b>		COLLECTION TIME: <b>2:30 PM</b>	
SAMPLE TYPE:			
PWS #:	PWS NAME: <b>HALL ENVIRONMENTAL ANALYSIS LAB</b>		
SAMPLING POINT/LOCATION: <b>1304515-0011 / BILL KING WELL</b>		TAG #/FACILITY ID:	
CONTACT NAME: <b>ANDY FREEMAN</b>		CONTACT PHONE: <b>505-345-3975</b>	



**Anatek Labs, Inc.**

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## Public Drinking Water System Inorganic Chemical (IOC) Analysis Report

FRDS	Contaminant	Result	Units	MCL	MDL	Method	Analysis Date	Analyst	Qualifier
<b>Primary IOCs</b>									
<b>Phase II</b>									
1024	Cyanide	ND	mg/L	0.2	0.01	EPA 335.4	4/25/2013	CRW	

ND = Analyte Not Detected

MCL = Maximum Contaminant Level

----- = No Analysis Performed

MDL = Method Detection Limit

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The results reported relate only to the samples indicated.

Soil/solid results are reported on a dry-weight basis unless otherwise noted.

**ANDY FREEMAN**  
**HALL ENVIRONMENTAL ANALYSIS LAB**  
**4901 HAWKINS NE SUITE D**  
**ALBUQUERQUE, NM 87109**

Lab Supervisor

### Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Monday, April 29, 2013

Page 1 of 1

May 08, 2013

Ms. Anne Thorne  
Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109

RE: Project: 1304515  
Pace Project No.: 3092037

Dear Ms. Thorne:

Enclosed are the analytical results for sample(s) received by the laboratory on April 17, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

*Carin A. Ferris*

Carin Ferris

carin.ferris@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 1304515

Pace Project No.: 3092037

### Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601  
ACCLASS DOD-ELAP Accreditation #: ADE-1544  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California/TNI Certification #: 04222CA  
Colorado Certification  
Connecticut Certification #: PH-0694  
Delaware Certification  
Florida/TNI Certification #: E87683  
Guam/PADEP Certification  
Hawaii/PADEP Certification  
Idaho Certification  
Illinois/PADEP Certification  
Indiana/PADEP Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: 90133  
Louisiana/TNI Certification #: LA080002  
Louisiana/TNI Certification #: 4086  
Maine Certification #: PA0091  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification  
Missouri Certification #: 235  
Montana Certification #: Cert 0082  
Nevada Certification  
New Hampshire/TNI Certification #: 2976  
New Jersey/TNI Certification #: PA 051  
New Mexico Certification  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
Oregon/TNI Certification #: PA200002  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
South Dakota Certification  
Tennessee Certification #: TN2867  
Texas/TNI Certification #: T104704188  
Utah/TNI Certification #: ANTE  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia Certification #: 143  
Wisconsin/PADEP Certification  
Wyoming Certification #: 8TMS-Q

## REPORT OF LABORATORY ANALYSIS

Page 2 of 10

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## SAMPLE SUMMARY

Project: 1304515

→ Pace Project No.: 3092037

Lab ID	Sample ID	Matrix	Date Collected	Date Received
→ 3092037001	1304515-001 Bill King Well	Water	04/11/13 14:30	04/17/13 09:30

## REPORT OF LABORATORY ANALYSIS

Page 3 of 10

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### SAMPLE ANALYTE COUNT

Project: 1304515  
Pace Project No.: 3092037

Lab ID	Sample ID	Method	Analysts	Analytes Reported
3092037001	1304515-001 Bill King Well	EPA 903.1	SLA	1
		EPA 904.0	MAW	1

### REPORT OF LABORATORY ANALYSIS

Page 4 of 10

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## PROJECT NARRATIVE

Project: 1304515

Pace Project No.: 3092037

**Method:** EPA 903.1

**Description:** 903.1 Radium 226

**Client:** Hall Environmental Analysis Laboratory

**Date:** May 08, 2013

**General Information:**

1 sample was analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

Page 5 of 10

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## PROJECT NARRATIVE

Project: 1304515

Pace Project No.: 3092037

---

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Hall Environmental Analysis Laboratory

Date: May 08, 2013

### General Information:

1 sample was analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

Page 6 of 10

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## ANALYTICAL RESULTS

Project: 1304515

Pace Project No.: 3092037

Sample: 1304515-001 Bill King Well Lab ID: 3092037001 Collected: 04/11/13 14:30 Received: 04/17/13 09:30 Matrix: Water  
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	0.0647 ± 0.380 (0.777)	pCi/L	05/07/13 13:20	13982-63-3	
Radium-228	EPA 904.0	0.463 ± 0.432 (0.855)	pCi/L	05/03/13 15:10	15262-20-1	

### QUALITY CONTROL DATA

Project: 1304515

Pace Project No.: 3092037

QC Batch: RADC/15513

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Associated Lab Samples: 3092037001

METHOD BLANK: 570877

Matrix: Water

Associated Lab Samples: 3092037001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Radium-228	0.111 ± 0.365 (0.833)	pCi/L	05/03/13 11:34	

### QUALITY CONTROL DATA

Project: 1304515  
Pace Project No.: 3092037

---

QC Batch:	RADC/15505	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
Associated Lab Samples:	3092037001		

---

METHOD BLANK:	570817	Matrix:	Water
Associated Lab Samples:	3092037001		

---

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.300 (0.650)	pCi/L	05/07/13 13:00	

## QUALIFIERS

Project: 1304515

Pace Project No.: 3092037

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

# QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions

Project: Enterprise WEP III Water Sampling

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>
Client ID: <b>PBW</b>	Batch ID: <b>R9910</b>	RunNo: <b>9910</b>
Prep Date: <b>2/22/2013</b>	Analysis Date: <b>4/16/2013</b>	SeqNo: <b>281828</b> Units: <b>mg/L</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>
Client ID: <b>LCSW</b>	Batch ID: <b>R9910</b>	RunNo: <b>9910</b>
Prep Date:	Analysis Date: <b>4/16/2013</b>	SeqNo: <b>281829</b> Units: <b>mg/L</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.56	0.020	0.5000	0	113	85	115			
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Boron	0.51	0.040	0.5000	0	102	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Cobalt	0.49	0.0060	0.5000	0	98.8	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.49	0.020	0.5000	0	98.5	85	115			
Molybdenum	0.50	0.0080	0.5000	0	100	85	115			
Nickel	0.49	0.010	0.5000	0	98.8	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	99.0	85	115			

Sample ID: <b>1304525-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>
Client ID: <b>BatchQC</b>	Batch ID: <b>R9910</b>	RunNo: <b>9910</b>
Prep Date:	Analysis Date: <b>4/16/2013</b>	SeqNo: <b>281855</b> Units: <b>mg/L</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.57	0.020	0.5000	0.01052	111	70	130			
Barium	0.49	0.0020	0.5000	0.01049	96.6	70	130			
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Cobalt	0.49	0.0060	0.5000	0.005440	96.5	70	130			
Copper	0.51	0.0060	0.5000	0	102	70	130			
Iron	0.48	0.020	0.5000	0	96.3	70	130			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits



# QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions

Project: Enterprise WEP III Water Sampling

Sample ID: 1304525-002AMS	SampType: MS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R9910	RunNo: 9910								
Prep Date:	Analysis Date: 4/16/2013	SeqNo: 281855	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Molybdenum	0.49	0.0080	0.5000	0.003890	98.1	70	130			
Nickel	0.49	0.010	0.5000	0	97.7	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Zinc	0.49	0.010	0.5000	0	98.5	70	130			

Sample ID: 1304525-002AMSD	SampType: MSD	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R9910	RunNo: 9910								
Prep Date:	Analysis Date: 4/16/2013	SeqNo: 281856	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.55	0.020	0.5000	0.01052	108	70	130	2.37	20	
Arsenic	0.48	0.0020	0.5000	0.01049	94.3	70	130	2.32	20	
Cadmium	0.49	0.0020	0.5000	0	98.6	70	130	3.50	20	
Cobalt	0.48	0.0060	0.5000	0.005440	94.1	70	130	2.41	20	
Copper	0.49	0.0060	0.5000	0	98.9	70	130	3.00	20	
Iron	0.47	0.020	0.5000	0	94.6	70	130	1.81	20	
Molybdenum	0.48	0.0080	0.5000	0.003890	96.1	70	130	2.03	20	
Nickel	0.48	0.010	0.5000	0	95.4	70	130	2.35	20	
Silver	0.10	0.0050	0.1000	0	100	70	130	3.33	20	
Zinc	0.48	0.010	0.5000	0	96.1	70	130	2.43	20	

Sample ID: LCS	SampType: LCS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: LCSW	Batch ID: R9937	RunNo: 9937								
Prep Date:	Analysis Date: 4/17/2013	SeqNo: 283074	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			

Sample ID: 1304525-002AMS	SampType: MS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R9937	RunNo: 9937								
Prep Date:	Analysis Date: 4/17/2013	SeqNo: 283086	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.52	0.0060	0.5000	0.002500	103	70	130			
Manganese	0.52	0.0020	0.5000	0.009480	101	70	130			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions

Project: Enterprise WEP III Water Sampling

Sample ID: 1304525-002AMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC		Batch ID: R9937		RunNo: 9937						
Prep Date:		Analysis Date: 4/17/2013		SeqNo: 283087		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.51	0.0060	0.5000	0.002500	101	70	130	1.36	20	
Manganese	0.51	0.0020	0.5000	0.009480	100	70	130	1.05	20	

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions

Project: Enterprise WEP III Water Sampling

Sample ID: 1304666-001DMS	SampType: MS	TestCode: EPA 200.8: Dissolved Metals
Client ID: BatchQC	Batch ID: R10184	RunNo: 10184
Prep Date:	Analysis Date: 4/29/2013	SeqNo: 290129 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Arsenic	0.028	0.0010 0.02500 0.001818 104 70 130
Selenium	0.026	0.0010 0.02500 0 105 70 130

Sample ID: 1304899-001BMS	SampType: MS	TestCode: EPA 200.8: Dissolved Metals
Client ID: BatchQC	Batch ID: R10184	RunNo: 10184
Prep Date:	Analysis Date: 4/29/2013	SeqNo: 290133 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Arsenic	0.040	0.0010 0.02500 0.01406 103 70 130

Sample ID: LCS	SampType: LCS	TestCode: EPA 200.8: Dissolved Metals
Client ID: LCSW	Batch ID: R10184	RunNo: 10184
Prep Date:	Analysis Date: 4/29/2013	SeqNo: 290150 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Arsenic	0.023	0.0010 0.02500 0 92.3 85 115
Selenium	0.023	0.0010 0.02500 0 90.8 85 115

Sample ID: LCS	SampType: LCS	TestCode: EPA 200.8: Dissolved Metals
Client ID: LCSW	Batch ID: R10184	RunNo: 10184
Prep Date:	Analysis Date: 4/29/2013	SeqNo: 290151 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Arsenic	0.025	0.0010 0.02500 0 98.3 85 115
Selenium	0.025	0.0010 0.02500 0 98.3 85 115

Sample ID: LCS	SampType: LCS	TestCode: EPA 200.8: Dissolved Metals
Client ID: LCSW	Batch ID: R10184	RunNo: 10184
Prep Date:	Analysis Date: 4/29/2013	SeqNo: 290152 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Arsenic	0.024	0.0010 0.02500 0 97.4 85 115
Selenium	0.024	0.0010 0.02500 0 96.8 85 115
Uranium	0.024	0.0010 0.02500 0 94.8 85 115

Sample ID: MB	SampType: MBLK	TestCode: EPA 200.8: Dissolved Metals
Client ID: PBW	Batch ID: R10184	RunNo: 10184
Prep Date:	Analysis Date: 4/29/2013	SeqNo: 290153 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Arsenic	ND	0.0010

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions

Project: Enterprise WEP III Water Sampling

Sample ID: MB	SampType: MBLK	TestCode: EPA 200.8: Dissolved Metals								
Client ID: PBW	Batch ID: R10184	RunNo: 10184								
Prep Date:	Analysis Date: 4/29/2013	SeqNo: 290153		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.0010								

Sample ID: MB	SampType: MBLK	TestCode: EPA 200.8: Dissolved Metals								
Client ID: PBW	Batch ID: R10184	RunNo: 10184								
Prep Date:	Analysis Date: 4/29/2013	SeqNo: 290154		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.0010								
Selenium	ND	0.0010								

Sample ID: MB	SampType: MBLK	TestCode: EPA 200.8: Dissolved Metals								
Client ID: PBW	Batch ID: R10184	RunNo: 10184								
Prep Date:	Analysis Date: 4/29/2013	SeqNo: 290155		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.0010								
Selenium	ND	0.0010								
Vanadium	ND	0.0010								

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: MB-6976	SampType: MBLK	TestCode: EPA Method 245.1: Mercury								
Client ID: PBW	Batch ID: 6976	RunNo: 9872								
Prep Date: 4/15/2013	Analysis Date: 4/15/2013	SeqNo: 281281 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID: LCS-6976		SampType: LCS		TestCode: EPA Method 245.1: Mercury						
Client ID: LCSW		Batch ID: 6976		RunNo: 9872						
Prep Date: 4/15/2013		Analysis Date: 4/15/2013		SeqNo: 281282		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.6	80	120			

Sample ID: 1304525-001BMS	SampType: MS	TestCode: EPA Method 245.1: Mercury								
Client ID: BatchQC	Batch ID: 6976	RunNo: 9872								
Prep Date: 4/15/2013	Analysis Date: 4/15/2013	SeqNo: 281290 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.3	75	125			

Sample ID: 1304525-001BMSD		SampType: MSD		TestCode: EPA Method 245.1: Mercury						
Client ID: BatchQC		Batch ID: 6976		RunNo: 9872						
Prep Date: 4/15/2013		Analysis Date: 4/15/2013		SeqNo: 281291		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.3	75	125	1.07	20	

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: MB	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R9856	RunNo: 9856								
Prep Date:	Analysis Date: 4/12/2013	SeqNo: 280578	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
fluoride	ND	0.10								
chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
sulfate	ND	0.50								

Sample ID: LCS	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R9856	RunNo: 9856								
Prep Date:	Analysis Date: 4/12/2013	SeqNo: 280579	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
fluoride	0.49	0.10	0.5000	0	97.2	90	110			
chloride	4.7	0.50	5.000	0	94.5	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	97.5	90	110			
Sulfate	9.5	0.50	10.00	0	94.9	90	110			

Sample ID: 1304515-001EMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: Bill King Well	Batch ID: R9856	RunNo: 9856								
Prep Date:	Analysis Date: 4/12/2013	SeqNo: 280581	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.85	0.10	0.5000	0.3907	91.7	76.6	110			
nitrogen, Nitrate (As N)	5.2	0.10	2.500	2.505	106	90.4	113			

Sample ID: 1304515-001EMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: Bill King Well	Batch ID: R9856	RunNo: 9856								
Prep Date:	Analysis Date: 4/12/2013	SeqNo: 280582	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
fluoride	0.86	0.10	0.5000	0.3907	94.2	76.6	110	1.46	20	
nitrogen, Nitrate (As N)	5.1	0.10	2.500	2.505	105	90.4	113	0.359	20	

Sample ID: 1304505-001CMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R9856	RunNo: 9856								
Prep Date:	Analysis Date: 4/12/2013	SeqNo: 280585	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
fluoride	0.51	0.10	0.5000	0.04010	94.5	76.6	110			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: 1304505-001CMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R9856	RunNo: 9856								
Prep Date:	Analysis Date: 4/12/2013	SeqNo: 280586 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iuoride	0.51	0.10	0.5000	0.04010	94.4	76.6	110	0.137	20	

Sample ID: 1304525-001AMS		SampType: MS		TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC		Batch ID: R9856		RunNo: 9856						
Prep Date:		Analysis Date: 4/12/2013		SeqNo: 280593		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iodide	1.4	0.10	0.5000	0.9636	90.1	76.6	110			
Chloride	16	0.50	5.000	10.22	107	87.8	111			
Sulfate	32	0.50	10.00	21.01	107	84.6	122			

Sample ID: 1304525-001AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC		Batch ID: R9856		RunNo: 9856						
Prep Date:		Analysis Date: 4/12/2013		SeqNo: 280594		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.4	0.10	0.5000	0.9636	90.8	76.6	110	0.254	20	
Chloride	16	0.50	5.000	10.22	107	87.8	111	0.0346	20	
Sulfate	32	0.50	10.00	21.01	108	84.6	122	0.180	20	

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R9856</b>	RunNo: <b>9856</b>								
Prep Date:	Analysis Date: <b>4/12/2013</b>	SeqNo: <b>280632</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iodide	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID: LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions						
Client ID: LCSW		Batch ID: R9856		RunNo: 9856						
Prep Date:		Analysis Date: 4/12/2013		SeqNo: 280633		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iodide	0.48	0.10	0.5000	0	96.1	90	110			
Chloride	4.6	0.50	5.000	0	92.3	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	96.2	90	110			
Sulfate	9.3	0.50	10.00	0	93.2	90	110			

## Qualifiers:

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level.   | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range             | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit               |
| P Sample pH greater than 2                   | R RPD outside accepted recovery limits               |
| RL Reporting Detection Limit                 | S Spike Recovery outside accepted recovery limits    |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions

Project: Enterprise WEP III Water Sampling

Sample ID: 1304546-010EMS		SampType: MS		TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC		Batch ID: R9856		RunNo: 9856						
Prep Date:		Analysis Date: 4/12/2013		SeqNo: 280643		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
luoride	1.6	0.10	0.5000	1.125	91.8	76.6	110			
itrogen, Nitrate (As N)	3.0	0.10	2.500	0.4275	101	90.4	113			

Sample ID: 1304546-010EMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC		Batch ID: R9856		RunNo: 9856						
Prep Date:		Analysis Date: 4/13/2013		SeqNo: 280644		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	0.5000	1.125	92.6	76.6	110	0.252	20	
Nitrogen, Nitrate (As N)	3.0	0.10	2.500	0.4275	102	90.4	113	0.569	20	

Sample ID: 1304558-002BMS		SampType: MS		TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R9856			RunNo: 9856						
Prep Date:	Analysis Date: 4/13/2013			SeqNo: 280651		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.3	0.10	0.5000	0.8156	93.2	76.6	110			
Nitrogen, Nitrate (As N)	3.0	0.10	2.500	0.4990	102	90.4	113			

Sample ID: 1304558-002BMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC		Batch ID: R9856		RunNo: 9856						
Prep Date:		Analysis Date: 4/13/2013		SeqNo: 280652		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.3	0.10	0.5000	0.8156	93.8	76.6	110	0.242	20	
Nitrogen, Nitrate (As N)	3.1	0.10	2.500	0.4990	103	90.4	113	1.05	20	

## Qualifiers:

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level.   | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range             | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit               |
| P Sample pH greater than 2                   | R RPD outside accepted recovery limits               |
| RL Reporting Detection Limit                 | S Spike Recovery outside accepted recovery limits    |

# QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: MB-6982	SampType: MBLK	TestCode: EPA Method 8011/504.1: EDB								
Client ID: PBW	Batch ID: 6982	RunNo: 9883								
Prep Date: 4/15/2013	Analysis Date: 4/15/2013	SeqNo: 281226	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Dibromoethane	ND	0.010								

Sample ID: LCS-6982	SampType: LCS	TestCode: EPA Method 8011/504.1: EDB								
Client ID: LCSW	Batch ID: 6982	RunNo: 9883								
Prep Date: 4/15/2013	Analysis Date: 4/15/2013	SeqNo: 281227	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Dibromoethane	0.11	0.010	0.1000	0	111	70	130			

Sample ID: LCSD-6982	SampType: LCS	TestCode: EPA Method 8011/504.1: EDB								
Client ID: LCSW	Batch ID: 6982	RunNo: 9883								
Prep Date: 4/15/2013	Analysis Date: 4/15/2013	SeqNo: 281228	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Dibromoethane	0.11	0.010	0.1000	0	106	70	130	4.61	0	

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: MB-6964	SampType: MBLK	TestCode: EPA Method 8082: PCB's								
Client ID: PBW	Batch ID: 6964	RunNo: 9907								
Prep Date: 4/14/2013	Analysis Date: 4/16/2013	SeqNo: 281780			Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
roclor 1016	ND	1.0								
roclor 1221	ND	1.0								
Aroclor 1232	ND	1.0								
roclor 1242	ND	1.0								
roclor 1248	ND	1.0								
Aroclor 1254	ND	1.0								
Aroclor 1260	ND	1.0								
Surr: Decachlorobiphenyl	3.2		2.500		128	23.9	124			S
Surr: Tetrachloro-m-xylene	2.6		2.500		102	28.1	139			

Sample ID: <b>LCS-6964</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8082: PCB's</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>6964</b>	RunNo: <b>9907</b>								
Prep Date: <b>4/14/2013</b>	Analysis Date: <b>4/16/2013</b>	SeqNo: <b>281781</b>			Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	3.9	1.0	5.000	0	78.2	32.3	121			
Aroclor 1260	5.8	1.0	5.000	0	115	34	128			
Surr: Decachlorobiphenyl	3.2		2.500		127	23.9	124			S
Surr: Tetrachloro-m-xylene	2.3		2.500		93.2	28.1	139			

Sample ID: 1304515-001DMS		SampType: MS		TestCode: EPA Method 8082: PCB's						
Client ID: Bill King Well		Batch ID: 6964		RunNo: 9907						
Prep Date: 4/14/2013		Analysis Date: 4/16/2013		SeqNo: 281793			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	2.0	1.0	5.000	0	40.1	70	130			S
Aroclor 1260	3.5	1.0	5.000	0	69.7	61.1	129			
Surr: Decachlorobiphenyl	2.7		2.500		109	23.9	124			
Surr: Tetrachloro-m-xylene	2.0		2.500		79.6	28.1	139			

Sample ID: 1304515-001DMSD		SampType: MSD		TestCode: EPA Method 8082: PCB's						
Client ID: Bill King Well		Batch ID: 6964		RunNo: 9907						
Prep Date: 4/14/2013		Analysis Date: 4/16/2013		SeqNo: 281794			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	1.9	1.0	5.000	0	37.0	70	130	7.98	20	S
Aroclor 1260	3.2	1.0	5.000	0	64.4	61.1	129	8.00	12.9	
Surr: Decachlorobiphenyl	2.6		2.500		102	23.9	124	0	0	
Surr: Tetrachloro-m-xylene	1.8		2.500		72.8	28.1	139	0	0	

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RI Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: 5mL rb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R9909		RunNo: 9909							
Prep Date:	Analysis Date: 4/16/2013		SeqNo: 281812		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
benzene	ND	1.0								
toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
o-Chlorotoluene	ND	1.0								
p-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
1,1-Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
trans-1,2-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
trans-1,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: 5mL rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R9909	RunNo: 9909								
Prep Date:	Analysis Date: 4/16/2013	SeqNo: 281812 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
exachlorobutadiene	ND	1.0								
Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
Isopropyltoluene	ND	1.0								
Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
n-Butylbenzene	ND	1.0								
1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Arenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	69.5	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: VOLATILES								
Client ID: LCSW	Batch ID: R9909	RunNo: 9909								
Prep Date:	Analysis Date: 4/16/2013	SeqNo: 281814 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Chlorobenzene	18	1.0	20.00	0	89.6	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	89.4	85.8	133			
Trichloroethene (TCE)	18	1.0	20.00	0	90.7	70	130			

## Qualifiers:

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level.   | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range             | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit               |
| P Sample pH greater than 2                   | R RPD outside accepted recovery limits               |
| RL Reporting Detection Limit                 | S Spike Recovery outside accepted recovery limits    |

# QC SUMMARY REPORT

Tall Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: 100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW		Batch ID: R9909		RunNo: 9909						
Prep Date:		Analysis Date: 4/16/2013		SeqNo: 281814		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.7	69.5	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: 1304484-001a ms		SampType: MS		TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC		Batch ID: R9909		RunNo: 9909						
Prep Date:		Analysis Date: 4/16/2013		SeqNo: 281886		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	26	1.0	20.00	10.24	78.7	70	130			
Toluene	26	1.0	20.00	8.257	89.4	68.5	128			
Chlorobenzene	18	1.0	20.00	0	88.5	70	130			
1,1-Dichloroethene	14	1.0	20.00	0	70.5	70	130			
Trichloroethene (TCE)	15	1.0	20.00	0	74.8	61.3	102			
Surr: 1,2-Dichloroethane-d4	8.1		10.00		81.4	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.5	69.5	130			
Surr: Dibromofluoromethane	8.0		10.00		79.6	70	130			
Surr: Toluene-d8	9.8		10.00		98.5	70	130			

Sample ID: 1304484-001a msd		SampType: MSD		TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC		Batch ID: R9909		RunNo: 9909						
Prep Date:		Analysis Date: 4/16/2013		SeqNo: 281887		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	27	1.0	20.00	10.24	83.9	70	130	3.96	20	S
Toluene	27	1.0	20.00	8.257	91.3	68.5	128	1.41	20	
Chlorobenzene	18	1.0	20.00	0	90.6	70	130	2.37	20	
1-Dichloroethene	14	1.0	20.00	0	69.4	70	130	1.55	20	
Trichloroethene (TCE)	15	1.0	20.00	0	72.8	61.3	102	2.65	20	
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.7		10.00		86.8	69.5	130	0	0	
Surr: Dibromofluoromethane	8.4		10.00		84.2	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID: <b>b4</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R9909</b>	RunNo: <b>9909</b>								
Prep Date:	Analysis Date: <b>4/16/2013</b>	SeqNo: <b>281922</b> Units: <b>µg/L</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits



# QC SUMMARY REPORT

WO#: 1304515

Full Environmental Analysis Laboratory, Inc.

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: b4	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R9909	RunNo: 9909								
Prep Date:	Analysis Date: 4/16/2013	SeqNo: 281922 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
luene	ND	1.0								
hylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
2,4-Trimethylbenzene	ND	1.0								
3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
aphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
etone	ND	10								
omobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
omoform	ND	1.0								
omomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
arbon Tetrachloride	ND	1.0								
chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
loroform	ND	1.0								
loromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
bromochloromethane	ND	1.0								
bromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2-Dichloropropane	ND	2.0								
1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: b4	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R9909	RunNo: 9909								
Prep Date:	Analysis Date: 4/16/2013	SeqNo: 281922 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
2-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	69.5	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: VOLATILES								
Client ID: LCSW	Batch ID: R9909	RunNo: 9909								
Prep Date:	Analysis Date: 4/16/2013	SeqNo: 281925 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
benzene	19	1.0	20.00	0	96.0	70	130			
toluene	18	1.0	20.00	0	88.5	80	120			
Chlorobenzene	17	1.0	20.00	0	86.3	70	130			
1,1-Dichloroethene	15	1.0	20.00	0	77.5	85.8	133			S
Trichloroethene (TCE)	18	1.0	20.00	0	89.4	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			

## Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
P Sample pH greater than 2	R RPD outside accepted recovery limits
RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: 100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW		Batch ID: R9909		RunNo: 9909						
Rep Date:		Analysis Date: 4/16/2013		SeqNo: 281925		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	10		10.00		101	69.5	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.8		10.00		97.5	70	130			

## Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
P Sample pH greater than 2	R RPD outside accepted recovery limits
RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: MB-6965	SampType: MBLK		TestCode: EPA Method 8310: PAHs							
Client ID: PBW	Batch ID: 6965		RunNo: 9888							
Prep Date: 4/14/2013	Analysis Date: 4/16/2013		SeqNo: 281803		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	2.0								
2-Methylnaphthalene	ND	2.0								
Acenaphthylene	ND	2.5								
Acenaphthene	ND	5.0								
Fluorene	ND	0.80								
Phenanthrene	ND	0.60								
Anthracene	ND	0.60								
Fluoranthene	ND	0.30								
Pyrene	ND	0.30								
Benz(a)anthracene	ND	0.070								
Chrysene	ND	0.20								
Benzo(b)fluoranthene	ND	0.10								
Benzo(k)fluoranthene	ND	0.070								
Benzo(a)pyrene	ND	0.070								
Dibenz(a,h)anthracene	ND	0.12								
Benzo(g,h,i)perylene	ND	0.12								
Indeno(1,2,3-cd)pyrene	ND	0.080								
Surr: Benzo(e)pyrene	16		20.00		79.6	46.4	106			

Sample ID: 1304546-001DMS	SampType: MS		TestCode: EPA Method 8310: PAHs							
Client ID: BatchQC	Batch ID: 6965		RunNo: 9888							
Prep Date: 4/14/2013	Analysis Date: 4/17/2013		SeqNo: 281950		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	22	2.0	80.00	1.780	25.7	70	130			S
1-Methylnaphthalene	34	2.0	80.20	1.740	39.7	70	130			S
2-Methylnaphthalene	34	2.0	80.00	1.560	40.4	70	130			S
Acenaphthylene	37	2.5	80.20	0	46.1	70	130			S
Acenaphthene	42	5.0	80.00	0	51.9	70	130			S
Fluorene	4.4	0.80	8.020	0	54.9	70	130			S
Phenanthrene	2.2	0.60	4.020	0	55.7	70	130			S
Anthracene	2.2	0.60	4.020	0	54.5	70	130			S
Fluoranthene	5.3	0.30	8.020	0	65.5	70	130			S
Pyrene	4.3	0.30	8.020	0	54.1	70	130			S
Benz(a)anthracene	0.53	0.070	0.8020	0	66.1	70	130			S
Chrysene	2.5	0.20	4.020	0	60.9	70	130			S
Benzo(b)fluoranthene	0.67	0.10	1.002	0	66.9	70	130			S
Benzo(k)fluoranthene	0.32	0.070	0.5000	0	64.0	70	130			S
Benzo(a)pyrene	0.31	0.070	0.5020	0	61.8	70	130			S

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: 1304546-001DMS		SampType: MS		TestCode: EPA Method 8310: PAHs						
Client ID: BatchQC		Batch ID: 6965		RunNo: 9888						
Prep Date: 4/14/2013		Analysis Date: 4/17/2013		SeqNo: 281950			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dibenz(a,h)anthracene	0.69	0.12	1.002	0	68.9	70	130			S
Benzo(g,h,i)perylene	0.63	0.12	1.000	0	63.0	70	130			S
Indeno(1,2,3-cd)pyrene	1.2	0.080	2.004	0	60.9	70	130			S
Surr: Benzo(e)pyrene	13		20.00		64.7	46.4	106			

Sample ID: 1304546-001DMSD	SampType: MSD	TestCode: EPA Method 8310: PAHs								
Client ID: BatchQC	Batch ID: 6965	RunNo: 9888								
Prep Date: 4/14/2013	Analysis Date: 4/17/2013	SeqNo: 281951 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	24	2.0	80.00	1.780	27.6	70	130	6.79	20	S
1-Methylnaphthalene	34	2.0	80.20	1.740	40.5	70	130	1.98	20	S
2-Methylnaphthalene	35	2.0	80.00	1.560	41.9	70	130	3.39	20	S
Acenaphthylene	38	2.5	80.20	0	48.0	70	130	3.84	20	S
Acenaphthene	42	5.0	80.00	0	52.6	70	130	1.22	20	S
Fluorene	4.4	0.80	8.020	0	55.2	70	130	0.680	20	S
Phenanthrene	2.3	0.60	4.020	0	58.2	70	130	4.37	20	S
Anthracene	2.3	0.60	4.020	0	56.5	70	130	3.59	20	S
Fluoranthene	4.9	0.30	8.020	0	61.2	70	130	6.69	20	S
Pyrene	4.4	0.30	8.020	0	54.2	70	130	0.230	20	S
Benzo(a)anthracene	0.54	0.070	0.8020	0	67.3	70	130	1.87	20	S
Benzofluorene	2.4	0.20	4.020	0	60.7	70	130	0.409	20	S
Benzo(b)fluoranthene	0.66	0.10	1.002	0	65.9	70	130	1.50	20	S
Benzo(k)fluoranthene	0.33	0.070	0.5000	0	66.0	70	130	3.08	20	S
Benzo(a)pyrene	0.32	0.070	0.5020	0	63.7	70	130	3.17	20	S
Dibenz(a,h)anthracene	0.69	0.12	1.002	0	68.9	70	130	0	20	S
Benzo(g,h,i)perylene	0.64	0.12	1.000	0	64.0	70	130	1.57	20	S
Indeno(1,2,3-cd)pyrene	1.2	0.080	2.004	0	61.9	70	130	1.63	20	S
Surr: Benzo(e)pyrene	13		20.00		65.4	46.4	106	0		

Sample ID: LCS-6965		SampType: LCS		TestCode: EPA Method 8310: PAHs						
Client ID: LCSW		Batch ID: 6965		RunNo: 9888						
Prep Date: 4/14/2013		Analysis Date: 4/18/2013		SeqNo: 283869		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	51	2.0	80.00	0	63.6	46	82.9			
1-Methylnaphthalene	54	2.0	80.20	0	66.8	47.2	85.8			
2-Methylnaphthalene	56	2.0	80.00	0	69.4	48.4	84.6			
Acenaphthylene	56	2.5	80.20	0	69.7	58.7	78.7			
Acenaphthene	56	5.0	80.00	0	69.6	55.3	85.1			

## Qualifiers:

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level.   | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range             | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit               |
| P Sample pH greater than 2                   | R RPD outside accepted recovery limits               |
| RI Reporting Detection Limit                 | S Spike Recovery outside accepted recovery limits    |

# QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: LCS-6965	SampType: LCS			TestCode: EPA Method 8310: PAHs						
Client ID: LCSW	Batch ID: 6965			RunNo: 9888						
Prep Date: 4/14/2013	Analysis Date: 4/18/2013			SeqNo: 283869			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
fluorene	4.2	0.80	8.020	0	52.4	31.9	82.2			
phenanthrene	2.7	0.60	4.020	0	66.9	54.5	81.9			
Anthracene	2.6	0.60	4.020	0	63.7	51.9	82.7			
fluoranthene	5.5	0.30	8.020	0	68.7	57.6	83.7			
pyrene	5.0	0.30	8.020	0	61.7	53.1	70.4			
Benz(a)anthracene	0.57	0.070	0.8020	0	71.1	48	85.7			
Chrysene	2.6	0.20	4.020	0	64.4	44.3	78.2			
benzo(b)fluoranthene	0.74	0.10	1.002	0	73.9	60	90.4			
benzo(k)fluoranthene	0.36	0.070	0.5000	0	72.0	61.4	89			
Benzo(a)pyrene	0.34	0.070	0.5020	0	67.7	63.5	88.6			
benz(a,h)anthracene	0.70	0.12	1.002	0	69.9	57	92.6			
benzo(g,h,i)perylene	0.70	0.12	1.000	0	70.0	55.4	95.9			
Indeno(1,2,3-cd)pyrene	1.3	0.080	2.004	0	64.4	52.7	88.6			
Surr: Benzo(e)pyrene	15		20.00		73.4	46.4	106			

## Qualifiers:

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level.   | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range             | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit               |
| P Sample pH greater than 2                   | R RPD outside accepted recovery limits               |
| RL Reporting Detection Limit                 | S Spike Recovery outside accepted recovery limits    |

# QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: MB-6971	SampType: MBLK	TestCode: Total Phenolics by SW-846 9067								
Client ID: PBW	Batch ID: 6971	RunNo: 9847								
Prep Date: 4/15/2013	Analysis Date: 4/15/2013	SeqNo: 280320		Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
phenolics, Total Recoverable	ND	2.5								

Sample ID: LCS-6971	SampType: LCS	TestCode: Total Phenolics by SW-846 9067								
Client ID: LCSW	Batch ID: 6971	RunNo: 9847								
Prep Date: 4/15/2013	Analysis Date: 4/15/2013	SeqNo: 280321		Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
phenolics, Total Recoverable	20	2.5	20.00	0	102	81.1	120			

Sample ID: LCSD-6971	SampType: LCSD	TestCode: Total Phenolics by SW-846 9067								
Client ID: LCSS02	Batch ID: 6971	RunNo: 9847								
Prep Date: 4/15/2013	Analysis Date: 4/15/2013	SeqNo: 280338		Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
phenolics, Total Recoverable	19	2.5	20.00	0	94.7	81.1	120	7.67	20	

## Qualifiers:

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level.   | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range             | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit               |
| P Sample pH greater than 2                   | R RPD outside accepted recovery limits               |
| RL Reporting Detection Limit                 | S Spike Recovery outside accepted recovery limits    |



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: 1304515-001e dup	SampType: dup	TestCode: SM4500-H+B: pH
Client ID: Bill King Well	Batch ID: R9854	RunNo: 9854
Prep Date:	Analysis Date: 4/12/2013	SeqNo: 280551 Units: pH units
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
H	7.61	1.68 H

Sample ID: 1304558-002b dup	SampType: dup	TestCode: SM4500-H+B: pH
Client ID: BatchQC	Batch ID: R9854	RunNo: 9854
Prep Date:	Analysis Date: 4/12/2013	SeqNo: 280564 Units: pH units
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
H	7.91	1.68 H

## Qualifiers:

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level.   | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range             | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit               |
| P Sample pH greater than 2                   | R RPD outside accepted recovery limits               |
| RL Reporting Detection Limit                 | S Spike Recovery outside accepted recovery limits    |

# QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1304515

08-May-13

Client: HRL Compliance Solutions  
Project: Enterprise WEP III Water Sampling

Sample ID: MB-6974	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 6974	RunNo: 9906								
Prep Date: 4/15/2013	Analysis Date: 4/16/2013	SeqNo: 281728 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: LCS-6974	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 6974	RunNo: 9906								
Prep Date: 4/15/2013	Analysis Date: 4/16/2013	SeqNo: 281729 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Sample ID: 1304525-001AMS	SampType: MS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: BatchQC	Batch ID: 6974	RunNo: 9906								
Prep Date: 4/15/2013	Analysis Date: 4/16/2013	SeqNo: 281739 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1190	20.0	1000	157.0	103	80	120			

Sample ID: 1304525-001AMSD	SampType: MSD	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: BatchQC	Batch ID: 6974	RunNo: 9906								
Prep Date: 4/15/2013	Analysis Date: 4/16/2013	SeqNo: 281740 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1190	20.0	1000	157.0	103	80	120	0.421	5	

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-410  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: HRL COMPLIANCE SOL

Work Order Number: 1304515

RcptNo: 1

Received by/date:

*MA*

*04/11/13*

Logged By:

Michelle Garcia

4/11/2013 4:30:00 PM

*Michelle Garcia*

Completed By:

Michelle Garcia

4/11/2013 5:31:18 PM

*Michelle Garcia*

Reviewed By:

*[Signature]*

*04/11/13*

### Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Client

### Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$

Yes ☐

No ☒

NA ☐

Samples were collected the same day and chilled.

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

# of preserved  
bottles checked  
for pH:

*51*

( $<2$  or  $<12$  unless noted)

Adjusted?

*NO*

Checked by:

*[Signature]*

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	11.3	Good	Not Present			

