David P. Poole
Senior Vice President –
General Counsel

dpoole@rangeresources.com
817-869-4254
817-869-9154 (fax)

May 25, 2011

Via Electronic Mail and Certified Mail Return Receipt Requested

Ms. Jacqueline Morrison
3LC00
Land and Chemicals Division
U.S. EPA, Region III
1650 Arch Street
Philadelphia, PA 19103
Email: morrison.jacqueline@epa.gov

Re: Information Request, Dated May 12, 2011
Request for Information on Marcellus Shale Flowback Water
Range Resources Corporation and Range Production Company

Ms. Morrison:

Range Resources Corporation and Range Production Company[1] ("***Range***") are in receipt of the U.S. Environmental Protection Agency's ("***EPA***") above-referenced request for information ("***Request***"). Range understands that EPA is interested in gathering information related to changes in industry practices as a result of the Pennsylvania Department of Environmental Protection's ("***PADEP***") request that natural gas well drilling operators cease delivering wastewater to certain facilities in the state. Range has an exemplary record of compliance with environmental regulations and an even stronger record of voluntary cooperation with environmental regulatory authorities. In keeping with this history, Range willingly responds to EPA's Request with the enclosed information showing the locations and development phases of Range's wells, copies of "26R" forms,[2] descriptions of past disposal and

[1] Range Resources Corporation and Range Production Company are separate legal entities and are referred to herein together as "Range" solely for convenience.

[2] Range recycled Marcellus Shale wastewater in 2010, and therefore does not have "26R" forms available for 2010. Range is instead providing EPA with copies of its 2009 "26R" forms.

recycling methods with respect to wastewater[3], descriptions of Range's use of centralized impoundments for storage or disposal of wastewater, and a description of Range's intentions with regard to disposal, reuse, treatment, recycling, and reclamation of gas extraction wastewater after May 19, 2011.

To the extent that EPA seeks different or additional information from what Range has provided, Range will greet all future requests with the same spirit of cooperation and, consistent with EPA's authority, will voluntarily provide information that Range believes will be helpful to EPA in meeting its properly authorized goals. To that end, Range offers the remainder of this letter to EPA for consideration and to explain Range's view of the authorities cited by EPA as the basis for the Request.

As authority for the Request, EPA cites several statutes, namely section 104(e) of the Comprehensive Environmental Response Compensation and Liability Act ("***CERCLA***"), section 3007(a) of the Resource Conservation and Recovery Act ("***RCRA***"), and section 308 of the Clean Water Act ("***CWA***"). Respectfully, and for the reasons stated below, Range does not understand any of these statutory provisions to empower EPA to seek the requested information from Range. Specifically, Range does not understand any of these statutory provisions to permit EPA, without first engaging in rulemaking, to seek forward-looking information or to impose an ongoing reporting obligation. While Range agrees to voluntarily submit information responsive to certain requests, including information regarding its future intentions for "disposal, reuse, treatment, recycling, and reclamation of Gas Extraction Wastewater after May 19, 2011," for the reasons stated below Range will not agree to submit quarterly reports to EPA regarding its "waste disposal and recycling practices."[4] Range currently provides this information to the PADEP on a semi-annual basis and, due to the lag time required to obtain and process manifests from Range's third-party contractors, quarterly production to EPA would create a substantial burden and meeting this burden, as requested, is infeasible and duplicative.

- CERCLA § 104(e) — EPA's information gathering authority under this provision does not authorize EPA to request forward-looking information or to impose an ongoing *ad hoc* reporting obligation—the provision says so plainly: "[t]he authority of this subsection may be exercised only for the purposes of determining the need for response, or choosing or taking any response action under this subchapter, or otherwise enforcing the provisions of this subchapter." This limitation accords with the legislative purpose of CERCLA as expressed by EPA—to allow EPA to remedy ***past*** mistakes in hazardous waste management." *See* S. Carolina Dep't of Health and Envtl. Control v. Commerce and Industry Ins. Co., 372 F.3d 245, 256 n.12 (4th Cir. 2004) (quoting an EPA Orientation Manual). Because the prospective nature of the information requested by

[3] The term "wastewater," as used herein, refers to wastewater generated by Range's Marcellus Shale activities.

[4] Attachment A details Range's response to each of EPA's information requests.

EPA in Requests 4 and 5 is not related to CERCLA's legislative purpose, those portions of the Request are not reasonable pursuant to EPA's grant of authority under CERCLA. *See* United States v. Pretty Products, Inc., 780 F. Supp. 1488, 1506 (S.D. Ohio 1991) (stating that an EPA information request will be enforced by a district court only if the information requested is "relevant to legislative purposes"). Additionally, a necessary predicate for the invocation of Section 104(e) information request authority is that there be a release or threatened release of hazardous substances or pollutants or contaminants that present an imminent and substantial danger to public health or welfare, subject to CERCLA enforcement authority. 42 U.S.C. § 9604(e)(1). The Request, which purports to seek information concerning all "wells owned or operated by you in EPA Region III" irrespective of whether there has been a release or threatened release of hazardous substances or pollutants or contaminants that presents an imminent and substantial danger at such facilities, exceeds EPA's Section 104(e) authority. Moreover, the "subchapter" referred to in § 104(e)(1) is Subchapter 1 of 42 U.S.C. Chapter 103, comprising 42 U.S.C. §§ 9601-9628, relating to the response to releases and threatened releases. Section 104(e) does not authorize use of the information request procedures contained in Section 104(e)(2) for other purposes, such as investigating compliance with other federal, state or local environmental laws or regulations.

- RCRA § 3007 — This provision requires entities handling ***hazardous waste*** to furnish information to EPA upon request. RCRA § 3001(b)(2)(A) delineates the steps EPA must follow to identify and list hazardous wastes, and precludes the classification of "drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of . . . natural gas" as hazardous waste. 42 U.S.C. § 6921(b)(2)(A). EPA has reexamined this exemption and concluded that wastes produced in connection with gas exploration, development, and production should continue to ***not*** be regulated as hazardous waste under RCRA. 53 Fed. Reg. 25,446 (July 6, 1988). Because EPA's request asks for information on waste that is not regulated as hazardous waste for RCRA purposes, RCRA § 3007 does not authorize EPA to request or obtain the information.

- CWA § 308 — As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System ("***NPDES***") permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. EPA's authority under Section 308 of the CWA is limited to requesting certain information from the "owner or operator of ***any point source***." 33 U.S.C. § 1318(a)(A) (emphasis added). The Request does not present any claim or evidence that the wells owned or operated by Range are a "point source" subject to regulation under the CWA.[5] Absent evidence that specific well facilities are point sources within the purview of the CWA, Section 308 does not authorize the Request. Additionally, at this time, Pennsylvania is an NPDES

[5] Moreover, with limited exceptions, none of which Range believes are applicable in this instance, Section 402(l)(2) exempts from regulation under the CWA discharges of stormwater from oil and gas exploration, production, processing or treatment operations or transmission facilities. 42 U.S.C. § 1342(l)(2).

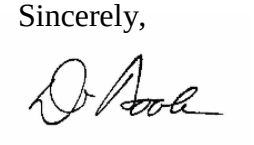
state, meaning that delegable NPDES functions are being implemented by PADEP, but Pennsylvania does not have an approved state pretreatment program. Accordingly, EPA serves as the Approval Authority for Pennsylvania's pretreatment program, but not for other aspects of the NPDES program. EPA accurately quotes CWA § 308 but its stated basis does not comport with the information requested. As explained by EPA in its letter, PADEP's request that natural gas well drilling operators cease delivering wastewater to 15 facilities in Pennsylvania triggered EPA's interest "in gathering information related to changes in industry practices that may be related to this development." However, the CWA does not authorize EPA to seek information on a whim or out of curiosity and EPA's stated basis is not logically connected to its statutory authority, which is limited to investigating actual or threatened discharges and "development of new effluent limits or pretreatment standards and to determine whether parties are in violation of existing effluent limits or pretreatment standards." Moreover, data provided to PADEP on a semi-annual basis for years prior responds to the requested information. The burden of producing duplicative historical information to EPA is great; it is incumbent on EPA to obtain such information from the state agency to which it has delegated the NPDES program functions. Furthermore, EPA seeks to arbitrarily change the frequency of reporting, i.e. semi-annually to quarterly, and the burden created far outweighs any discernable benefit to the Agency.

Accordingly, the scope of the Request is not authorized by the statutory provisions cited by EPA. Moreover, the Request purports to impose binding obligations on Range and purports to subject it to penalties for noncompliance. The Request, then, is akin to a legislative rule that imposes obligations and significantly affects private interests—implicating notice-and-comment procedures that EPA has yet to satisfy. *See, e.g.*, U.S. Telecom Ass'n v. F.C.C., 400 F.3d 29, 34–35 (D.C. Cir. 2005); Batterton v. Marshall, 648 F.2d 694, 701–02 (D.C. Cir. 1980). As stated previously, EPA seeks to arbitrarily change the frequency of reporting, i.e. semi-annually to quarterly. EPA cannot engage in *ad hoc* rulemaking, and until EPA follows administrative rulemaking procedures, it cannot impose an ongoing reporting obligation on Range pursuant to the statutory provisions cited. *See* Reuters Limited v. F.C.C., 781 F.2d 946, 950-51 (D.C. Cir. 1986) ("[I]t is elementary that an agency must adhere to its own rules and regulations. Ad hoc departures from those rules, even to achieve laudable aims, cannot be sanctioned, for therein lie the seeds of destruction of the orderliness and predictability which are the hallmarks of lawful administrative action. Simply stated, rules are rules, and fidelity to the rules which have been properly promulgated, consistent with applicable statutory requirements, is required of those to whom Congress has entrusted the regulatory missions of modern life.") (internal citation omitted).

Although it is Range's position that EPA's reliance on the provisions it cites as giving it authority to make the Request is misplaced, Range desires to cooperate with EPA and, in that spirit, offers EPA the responsive information enclosed. Additionally, if, after the date of this response, Range discovers additional similar information or documents Range will promptly

supplement its response. Range objects, however, to EPA's attempt to use an information request to obtain forward-looking information and to impose an ongoing reporting obligation without first satisfying administrative rulemaking procedures. If EPA desires, Range is open to discussing further EPA's interpretation of its authority to compel different or additional responses to the Request pursuant to the above-referenced statutory provisions. Any replies or correspondence related to this response should be directed to David P. Poole, General Counsel, Range Production Company, 100 Throckmorton Street, Suite 1200, Fort Worth, Texas 76102, or faxed to 817.869.4254, attention David Poole.

Sincerely,



David P. Poole

Enclosures

ATTACHMENT A

Range's Response to EPA's Request for Information
Regarding Marcellus Shale Flowback Water

1. Provide a list identifying each state permitted Well that you own or operate in EPA Region III and include the latitude and longitude for each Well and identify whether each well is actively being drilled, is completed, or is producing natural gas.

RESPONSE:

See Attachment B.

2. Provide all Pennsylvania "26R" forms completed and submitted to the Commonwealth of Pennsylvania for all Gas Extraction Wastewaters associated with your Wells for the calendar year 2010, including complete Chemical Analysis Attachments associated with each.

RESPONSE:

See attachment C. Please note that, because Range recycled Marcellus Shale wastewater in 2010, and therefore does not have "26R" forms available for 2010, Range is instead providing EPA with copies of its 2009 "26R" forms.

3. For the period of April 19, 2011 to present, identify your Gas Extraction Wastewater management activities, including disposal, reuse, treatment, recycling, and reclamation for your Wells. In doing so, provide the following:

3.a. For each Well, the actual or estimated amount of Gas Extraction Wastewater generated;

RESPONSE:

For the reasons stated in the attached letter, Range respectfully declines to respond to Request 3.a.

3.b. For each facility that has received your Gas Extraction Wastewater, including but not limited to, underground injection wells, wastewater treatment plants, and recycling facilities, provide the name and address for each such facility, the name and address of any entity that transported your Gas Extraction Wastewater to each facility, and the volume (in gallons) of such Gas Extraction Wastewater sent to each such facility;

RESPONSE:

For the reasons stated in the attached letter, Range respectfully declines to respond to Request 3.b.

3.c. The total volume (in gallons) of Gas Extraction wastewater that you treated and recycled or caused to be treated or recycled for all your Well sites;

RESPONSE:

For the reasons stated in the attached letter, Range respectfully declines to respond to Request 3.c.

3.d. A description of the method or methods by which you or any third party recyclers recycled such Gas Extraction Wastewater (April 19, 2011 to present);

RESPONSE:

Range Resources classifies its water types consistent with the designations utilized by the Pennsylvania Department of Environmental Protection ("***PADEP***") in its semi-annual reporting Oil and Gas Annual Production System. These classifications are: Brine, Drilling, and Frac Fluid. Brine includes water collected from a well that is producing natural gas to sales. Drilling water is any water generated during drilling activities; this designation may include, but is not limited to, stormwater runoff from drilling pads, water collected in reserve pits, and residual water from recycling of water-based drilling mud. Each of these classifications of water is handled differently, and the way that each is handled depends in part on the geographic location of operations: either Northern Marcellus (North-Central Pennsylvania) or Southern Marcellus (Southwestern Pennsylvania).

Northern Marcellus

Currently all Brine, Drilling, and Frac Fluid waters are being collected on location and transported to Eureka Resources, LLC; a third-party owned and operated advanced treatment facility operating under PADEP General Permit WMGR119, PADEP Plan Approval 41-00079A, and Permit No. C-20 issued by the Williamsport Sanitary Authority under its EPA regulated industrial pretreatment program. The facility processes the water through equalization, primary clarification, metals precipitation, sand filtration, and mechanical vapor recompression/distillation. The condensed, distilled water is discharged to the local municipal authority while the concentrated brine is transported to injection wells in Ohio.

Southern Marcellus

Brine is collected on a daily basis from actively producing gas wells. Range is currently recycling approximately half of this volume of water. The water is recycled by transferring it to one of Range Resources' PADEP permitted reuse water impoundments. Before being transferred into the reuse water impoundments it is either filtered through a bag filtration system or cycled through a bank of weir tanks to remove any residual solids that may be present. The remaining volume of brine that is not recycled is transported directly from the well sites to injection wells in Ohio for disposal.

Stormwater runoff collected from constructed locations prior to the commencement of drilling operations is recycled by filtering it through a bag filtration system and transferring it to one of Range's PADEP permitted reuse water impoundments where it is stored for reuse. Water collected after the commencement of drilling operations is recycled by filtering it through a bag filtration system and transferring it to a third-party owned and operated PADEP permitted centralized treatment facility. The centralized treatment facility processes the water through equalization, metals precipitation, clarification, and multi-media filtration. The water is then transferred to one of Range's PADEP permitted reuse water impoundments where it is stored for reuse.

Water is also generated from drilling operations by the water-based mud recycling process. Water generated from this process is recycled by filtering it through a bag filtration system and transferring it to a third-party owned and operated PADEP permitted centralized treatment facility. The centralized treatment facility processes the water through equalization, metals precipitation, clarification, and multi-media filtration. The water is then transferred to one of Range Resources' PADEP permitted reuse water impoundments where it is stored for reuse.

Water produced through well completions operations is recycled by filtering it through a bag filtration system and transferring it to one of Range Resources' PADEP permitted reuse water impoundments where it is stored for reuse.

3.e. All modified disposal plans that you submitted after April 19, 2011 to the Commonwealth pursuant to the Pennsylvania Code Title 52 Section 78.55;

RESPONSE:

Range is not currently required to submit a modified disposal plan to the Commonwealth and, as of the date of this response, has not submitted such a plan.

3.f. Describe your use of pits, lagoons, impoundments or other land based units used for the storage or disposal of such Gas Extraction Wastewater associated with your gas extraction activities.

RESPONSE:

Range Resources utilizes reuse water impoundments constructed and permitted under PA Code Chapter 78.56 – 78.63 and the *Design, Construction and Maintenance Standards for Pits and Dam Embankments Associated with Impoundments for Oil and Gas Wells* to facilitate our reuse program in our Southern Marcellus operating area. Reuse water sources are segregated and treated, as described above, and then stored in our reuse water impoundments until utilized for well completion operations.

3.g. Provide the latitude and longitude for all pits, lagoons, impoundments or other land based units used for the storage of Gas Extraction Wastewater associated with your gas extraction activities.

RESPONSE:

Water Reuse Impoundments	Location	
	Latitude	Longitude
[redacted]	40°13'53.21"N	80°16'24.75"W
	40°12'25.2"N	80°22'5.16"W
	40°19'39.94"N	80°17'46.73"W
	40°7'22.67"N	80°13'1.14"W
	40°12'18.83"N	80°24'57.69"W
	40°14'42.29"N	80°20'58.94"W
	40°18'1.46"N	80°13'48.40"W
	40°5'26.72"N	80°13'35.14"W

4. Identify your intentions for disposal, reuse, treatment, recycling, and reclamation of Gas Extraction Wastewater after May 19, 2011, include your expected methods and location for disposal, treatment or recycling during calendar year 2011. Provide the expected percentage of your Gas Extraction Wastewater by disposal, treatment, or recycling method.

RESPONSE:

Prior to May 19, 2011 Range Resources utilized an established water recycling program, as described above, that eliminated water disposal through "conventional" surface discharge treatment facilities. Instead, all water was disposed of via either injection wells or Eureka Resources, LLC, which utilizes an advanced thermal distillation process to produce distilled water for discharge to the local municipal authority.

Range Resources intends to continue utilizing our existing approach and methodologies to water recycling as described above, with the exception of implementing a recycling program in our Northern Marcellus operations. This program will consist of transferring a percentage of Brine, Drilling, and Frac Fluid water from the locations at which they are produced directly to completions operations for reuse. The remaining percentage of Brine, Drilling, and Frac Fluid water will be transferred to Eureka Resources for treatment and disposal.

Upon implementation of our recycling program, we anticipate the below distribution of water recycling versus disposal for the remainder of calendar year 2011:

Water	Recycle Percentage	Disposal Percentage	Disposal Location
Frac Fluid	99%	1%	Eureka Resources, LLC
Brine	50%	50%	OH Injection Wells and Eureka Resources
Drilling	91%	9%	Eureka Resources, LLC

5. Submit quarterly reports to EPA on your waste disposal and recycling practices commencing on July 1, 2011 and continuing on a quarterly basis thereafter until June 30, 2012, for a total of four (4) quarters. Such quarterly reports shall include the following information for the prior quarter:

5.a. For each Well, the actual or estimated volume (in gallons) of Gas Extraction Wastewater generated;

RESPONSE:

For the reasons stated in the attached letter, Range respectfully declines to respond to Request 5.a.

5.b. For each facility that has received your Gas Extraction Wastewater, including but not limited to, underground injection wells, wastewater treatment plants, and recycling facilities, provide the name and address for each such facility, the name and address of any entity that transported your Gas Extraction Wastewater to each facility, and the volume (in gallons) of such Gas Extraction Wastewater sent to each such facility;

RESPONSE:

For the reasons stated in the attached letter, Range respectfully declines to respond to Request 5.b.

5.c. The total volume (in gallons) of Gas Extraction Wastewater that you or any third parties treated and recycled or caused to be treated or recycled for all your Well sites;

RESPONSE:

For the reasons stated in the attached letter, Range respectfully declines to respond to Request 5.c.

5.d. A description of the method or methods by which you or any third party recyclers recycled such Gas Extraction Wastewater;

RESPONSE:

For the reasons stated in the attached letter, Range respectfully declines to respond to Request 5.d.

5.e. Describe your use of pits, lagoons, impoundments, or other land-based units for the storage or disposal of such Gas Extraction Wastewater for your gas extraction activities.

RESPONSE:

For the reasons stated in the attached letter, Range respectfully declines to respond to Request 5.e.

5.f. Provide the latitude and longitude for all pits, lagoons, impoundments or other land based units used for the storage of gas Extraction wastewater associated with your gas extraction activities.

RESPONSE:

For the reasons stated in the attached letter, Range respectfully declines to respond to Request 5.f.

6. Identify any and all discharges or releases of any substances, wastes, and/or Gas Extraction Wastewater from facilities that contain Wells that you own or operate and all media (air, water, or land) that were affected by such discharges or releases and the estimated quantities of all substances discharged or released for the past five (5) years.

RESPONSE:

For the reasons stated in the attached letter, Range respectfully declines to respond to Request No. 6. Additionally, Range objects to Request No. 6 because the request is vague, overbroad in scope, and, accordingly, is not authorized by law. The request uses a series of undefined and ambiguous terms, such as "discharge," "release," "any substances," and "all media." The request could be read to require the disclosure of the release of anything (*e.g.*, fresh water, stormwater runoff), anywhere (*e.g.*, steam and water evaporation), for the last five years. In referring to "any substances," the request exceeds EPA's authority under CERCLA, the CWA, and RCRA, which respectively refer only to hazardous substances, pollutants, and hazardous waste. As such, the request is beyond the scope of EPA's authority to seek information related to the actual and/or threatened release of hazardous substances or the release of contaminants or pollutants that may pose an imminent hazard, information related to point sources, or information related to hazardous waste activities.

ATTACHMENT B

Well List Info for EPA Reporting

Attachment B

NGE RESOURCES

Well Name	API #	Orig Spud Date	Latitude (DMS)	Longitude (DMS)	Date	Type 1
1H	37-125-23932	1/20/2010	40°17 ' 27.7" N	80°14' 52" W	10/1/2010	Turn On Production D ate
	37-125-23933	1/21/2010	40°17' 27.7" N	80°14' 52.3" W	10/1/2010	Turn On Production Date
	37-125-22366	3/15/2007	40°17' 16.6" N	80°18' 51" W	9/29/2010	Plug & Abandon Date
	37-125-22447	2/5/2007	40°17' 0.133" N	80°18' 36.986" W	4/19/2007	Turn On Production Date
H	37-125-22831	9/20/2007	40°17' 29.69 9" N	80°18' 43.402" W	2/5/2008	Turn On Production Dat e
3H	37-125-24299		40°21' 46.55" N	80° 16' 8.57" W	3/16/2011	Suspend Operations Date
owhead Hunting Club Unit 2	37-035-21123	10/13/2008	41°14' 48.206" N	77°28' 28.592" W	8/6/2010	Plug & Ab andon Date
owhead Hunting Club Unit 3H	37-035-21204	8/7/2010	41°14' 47.82" N	77°28' 28.98" W	9/23/2010	TD Date
	37-125-23730	6/27/2009	40°13' 49 .7" N	80°16' 39.7" W	6/12/2010	Turn On Production Dat e
	37-125-23731	6/27/2009	40°13' 50 .1" N	80°16' 39.6" W	6/12/2010	Turn On Production Dat e
	37-125-23732	6/28/2009	40°13' 50 .3" N	80°16' 39.6" W	6/12/2010	Turn On Production Dat e
	37-125-23785	7/21/2009	40°13' 50 .5" N	80°16' 39.6" W	8/26/2010	Turn On Production Dat e
	37-125-23733	6/28/2009	40°13' 50 .5" N	80°16' 39.7" W	8/26/2010	Turn On Production Dat e
H	37-125-23734	6/28/2009	40°13' 50 .3" N	80°16' 39.7" W	8/26/2010	Turn On Production Dat e
	37-125-23786	7/21/2009	40°13' 50 .1" N	80°16' 39.7" W	6/12/2010	Turn On Production Dat e
	37-125-23787	7/23/2009	40°13' 49.9" N	80°16' 39.7" W	6/12/2010	Turn On Production Dat e
	37-125-23471	12/30/2008	40°4' 49" N	80°1 3' 21.2" W	7/14/2009	Plug & Abandon Date
	37-125-23280	2/27/2009	40°16' 13" N	80°18' 30.8" W	7/31/2009	Turn On Production Date
	37-125-23591	4/9/2009	40°16' 13.1 " N	80°18' 31" W	7/29/2009	Turn On Production Date
	37-125-23609	5/28/2009	40°6' 59 .9" N	80°13' 42.1" W	2/15/2010	Turn On Production Dat e
	37-125-23153	5/17/2008	40°7' 0.098" N	80°13' 42.208" W	12/17/2009	Turn On Production Date
	37-125-23156	4/30/2009a	40°7' 0.2" N	80°13' 42.1" W	12/22/2009	Turn On Production Dat e
	37-125-23160	5/23/2008	40°12' 24.99 8" N	80°22' 3" W	10/18/2009	Turn On Production Date
	37-125-23159	6/15/2008	40°12' 24.90 1" N	80°22' 2.798" W	10/5/2009	Turn On Production Dat e
	37-125-24022	4/21/2010	40°12' 24.47 " N	80°22' 1.78" W	2/11/2011	Completions Date
	37-125-24021	4/21/2010	40°12' 24.43 " N	80°22' 1.6" W	2/14/2011	Completions Date
	37-125-24109	4/20/2010	40°12' 24.61 " N	80°22' 1.93" W	2/21/2011	Completions Date
	37-125-24028	4/20/2010	40°12' 24.52 " N	80°22' 1.97" W	2/21/2011	Completions Date
H	37-125-24110	4/23/2010	40°12' 24.53 " N	80°22' 1.56" W	2/14/2011	Completions Date
H	37-125-24111	4/23/2010	40°12' 24" N	80°22' 1.74" W	2/21/2011	Completions Date
	37-123-43847	8/16/2007	41°46' 19.884" N	79°27 ' 43.2" W	11/27/2007	Turn On Production Date
	37-125-23277	10/28/2008	40°13' 58.102" N	80°20' 17.7" W	9/10/2009	Turn On Production Date
	37-125-23283	11/6/2008	40°13' 58.001" N	8 0°20' 17.498" W	10/2/2009	Turn On Production Date
	37-125-23282	11/3/2008	40°13' 58.001" N	8 0°20' 17.3" W	9/10/2009	Turn On Production Date
	37-125-23284	10/29/2008	40°13' 58.001" N	80°20' 17.099" W	5/17/2009	TD Date
	37-125-23370	11/30/2008	40°13' 58" N	80° 20' 17" W	9/10/2009	Turn On Production Date
	37-125-23368	11/13/2008	40°13' 58" N	80° 20' 16.5" W	9/10/2009	Turn On Production Date
	37-125-23369	11/30/2008	40°13' 58.155" N	80°20' 15.526" W	9/10/2009	Turn On Production Date
	37-125-24099	5/9/2010	40°7' 51.35" N	8 0°11' 16.62" W	4/2/2011	TD Date
	37-125-24100	5/10/2010	40°7' 51.46" N	80°11' 17.13" W	8/31/2010	Suspend Operations Date
	37-125-24096	5/9/2010	40°7' 51.2" N	80 °11' 16.68" W	10/5/2010	Suspend Operations Date
	37-125-24097	5/10/2010	40°7' 51.3" N	8 0° 11' 16.9" W	3/23/2011	TD Date
	37-125-24128	5/13/2010	40°7' 51.55" N	8 0°11' 17.36" W	3/12/2011	TD Date
	37-125-24129	5/13/2010	40°7' 51.65" N	8 0°11' 17.31" W	5/1/2011	Resume Operations Date
	37-125-24098	5/9/2010	40°7' 51.25" N	80 °11' 16.39" W	4/20/2011	TD Date
	37-125-24058	5/8/2010			4/12/2011	TD Date
	37-125-24130	5/10/2010	40°7' 51.48" N	8 0°11' 16.84" W	4/29/2011	TD Date
	37-125-24239		40°0' 0" N	80°0' 0" W	3/23/2011	Suspend Operations Date
	37-125-24232	1/10/2011	40°13' 33.89" N	80°22' 45.62" W	1/26/2011	Suspend Operations Date
	37-125-24233	1/11/2011	40°13' 33.93" N	80°22' 45.51" W	2/17/2011	Suspend Operations Date
	37-125-24252	1/11/2011	40°13' 34.06" N	80°22' 45.74" W	3/11/2011	Suspend Operations Date
	37-125-24327	1/11/2011	40°13' 34.23" N	80°22' 45.86" W	3/21/2011	Suspend Operations Date
	37-125-24234	1/11/2011	40°13' 34.11" N	80°22' 45.63" W	3/2/2011	Suspend Operations Date
	37-125-24235		40°0' 0" N	80°0' 0" W	3/23/2011	Suspend Operations Date
	37-125-24236	3/22/2011			4/21/2011	Suspend Operations Date
	37-125-24237	3/11/2011	40°13' 34.63" N	80°22' 45.99" W	3/30/2011	Suspend Operations Date
	37-125-24238	3/12/2011	40°13' 34.58" N	80°22' 46.11" W	4/7/2011	Suspend Operations Date
	37-083-51038	10/13/2006	41°45' 18.9" N	78°24' 41.6" W	1/24/2007	Turn On Production Date
t Mountain Hunting Club 1	37-081-20056	7/23/2007	41°22' 36.367" N	77°8' 13.794" W	5/8/2008	Shut-In Dat e
	37-125-23173	8/18/2008	40°13' 34.8" N	80°3 0' 59.3" W	3/26/2011	Plug & Abandon Date
	37-125-23174	5/31/2008	40°13' 34.9" N	80° 30' 59.3" W	5/1/2009	Turn On Production Date
	37-125-22709	7/9/2007	40°16' 50" N	80°22' 48.7" W	1/18/2008	Turn On Production Date
	37-125-22258	1/20/2006	40°18' 24" N	80° 19' 5.4" W	10/9/2006	Turn On Production Date
	37-125-22237	5/1/2006	40°18' 39.7" N	80° 19' 33.5" W	10/25/2006	Turn On Production Date

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Attachment B

Well Name	API #	Orig Spud Date	Latitude (DMS)	Longitude (DMS)	Date	Type 1
[redacted]	37-125-22499	8/9/2007	40° 18' 19.8" N	80° 19' 34.7" W	10/2/2007	Turn On Production Date
	37-125-22500	2/23/2007	40° 18' 6.84" N	80° 19' 17.183" W	4/25/2007	Turn On Production Date
	37-125-24011	3/11/2010	40° 12' 38.6" N	80° 21' 10" W	2/13/2011	Turn On Production Date
	37-125-23970	3/12/2010	40° 12' 38.7" N	80° 21' 10.2" W	2/23/2011	Turn On Production Date
	37-125-23971	3/12/2010	40° 12' 38.5" N	80° 21' 10.2" W	2/22/2011	Turn On Production Date
	37-125-23864	3/10/2010	40° 12' 38.3" N	80° 21' 10.1" W	2/20/2011	Turn On Production Date
	37-125-23972	3/12/2010	40° 12' 38.4" N	80° 21' 10" W	2/19/2011	Turn On Production Date
	37-125-24013	3/12/2010	40° 12' 38.2" N	80° 21' 10" W	2/18/2011	Turn On Production Date
	37-125-23905	3/12/2010	40° 12' 38.9" N	80° 21' 10.3" W	2/17/2011	Turn On Production Date
	37-125-23906	3/11/2010	40° 12' 38.9" N	80° 21' 10.1" W	2/15/2011	Turn On Production Date
	37-125-24012	3/11/2010	40° 12' 38.7" N	80° 21' 10.1" W	2/13/2011	Turn On Production Date
	37-125-22252	11/17/2006	40° 16' 8" N	80° 22' 16.9" W	10/10/2006	Turn On Production Date
	37-125-22264	3/9/2006	40° 15' 55.4" N	80° 21' 58.4" W	10/16/2006	Turn On Production Date
H	37-125-22265	4/17/2006	40° 16' 13.44" N	80° 22' 40.332" W	5/17/2007	Turn On Production Date
	37-125-22440	1/17/2007	40° 15' 40.32" N	80° 22' 38.88" W	4/3/2007	Turn On Production Date
	37-125-22431	1/31/2007	40° 16' 15.3" N	80° 21' 49.4" W	3/29/2007	Turn On Production Date
	37-125-22434	2/12/2007	40° 15' 57.7" N	80° 21' 32.6" W	4/5/2007	Turn On Production Date
	37-125-22638	6/21/2007	40° 15' 43.1" N	80° 22' 18.3" W	3/19/2011	Plug & Abandon Date
	37-125-22508	1/8/2007	40° 15' 3.4" N	80° 19' 28.3" W	4/6/2007	Turn On Production Date
	37-125-22509	2/16/2007	40° 15' 11.9" N	80° 19' 7" W	4/12/2007	Turn On Production Date
H	37-125-22724	7/24/2007	40° 14' 54.2" N	80° 19' 43.6" W	6/19/2008	Turn On Production Date
	37-125-22725	6/30/2008	40° 14' 54.2" N	80° 19' 43.4" W	12/17/2009	Plug & Abandon Date
	37-125-22726	7/21/2007	40° 15' 25.054" N	80° 19' 56.826" W	10/19/2007	Turn On Production Date
	34-029-21656	11/19/2007	40° 49' 34.391" N	80° 40' 3.755" W	11/19/2007	Spud Date
	37-125-22636	9/25/2007	40° 18' 52.052" N	80° 19' 16.724" W	11/17/2007	Turn On Production Date
	37-125-23803	9/4/2009	40° 16' 0.4" N	80° 21' 17.2" W	5/5/2010	Turn On Production Date
	37-125-23804	9/3/2009	40° 16' 0.6" N	80° 21' 17.2" W	5/5/2010	Turn On Production Date
	37-125-23023	2/26/2008	40° 19' 48.3" N	80° 16' 55.1" W	1/13/2010	Turn On Production Date
	37-125-23304	1/22/2009	40° 19' 48.207" N	80° 16' 54.997" W	3/12/2010	Turn On Production Date
	37-125-23693	10/27/2009	40° 19' 41.2" N	80° 17' 46" W	5/21/2010	Turn On Production Date
	37-125-23780	10/28/2009	40° 19' 41.1" N	80° 17' 45.4" W	5/20/2010	Turn On Production Date
	37-125-23781	10/28/2009	40° 19' 41.1" N	80° 17' 45.8" W	5/21/2010	Turn On Production Date
	37-125-23782	10/28/2009	40° 19' 41.1" N	80° 17' 45.6" W	5/19/2010	Turn On Production Date
s Creek County Park 14H	37-125-23165	6/20/2008	40° 14' 47.9" N	80° 22' 53.3" W	6/2/2009	Turn On Production Date
s Creek County Park 15H	37-125-23182	6/28/2008	40° 14' 47.9" N	80° 22' 53.5" W	5/1/2009	Turn On Production Date
s Creek County Park 16H	37-125-23300	2/27/2009	40° 14' 47.9" N	80° 22' 53.1" W	6/19/2009	Turn On Production Date
s Creek County Park 25H	37-125-23859	10/29/2009	40° 15' 39.8" N	80° 25' 27.5" W	4/15/2010	Turn On Production Date
s Creek County Park 5	37-125-22618	5/24/2007	40° 15' 2.5" N	80° 22' 43.7" W	6/23/2007	Turn On Production Date
s Creek County Park 6H	37-125-22830	7/15/2008	40° 15' 46.1" N	80° 23' 17.8" W	3/30/2009	Turn On Production Date
s Creek County Park 7H	37-125-22861	7/22/2008	40° 15' 39.2" N	80° 23' 27" W	4/14/2010	Turn On Production Date
s Creek County Park 8H	37-125-22793	7/2/2008	40° 15' 46.1" N	80° 23' 17.6" W	3/30/2009	Turn On Production Date
s Creek County Park 9H	37-125-22668	7/13/2008	40° 15' 39.6" N	80° 23' 27.2" W	4/14/2010	Turn On Production Date
[redacted]	34-081-20487	12/7/2007	40° 19' 4.751" N	80° 36' 58.066" W	12/12/2007	TD Date
	37-125-23185	1/14/2009	40° 7' 21.4" N	80° 1' 2' 58.1" W	5/20/2010	Turn On Production Date
	37-125-23205	9/2/2008	40° 7' 21.5" N	80° 12 ' 57.9" W	5/22/2010	Turn On Production Date
	37-125-23796	8/5/2009	40° 7' 21.8" N	80° 12 ' 57.3" W	5/21/2010	Turn On Production Date
	37-125-23828	9/18/2009	40° 7' 21.9" N	80° 1 2' 57.3" W	5/20/2010	Turn On Production Date
	37-125-23795	7/15/2009	40° 7' 21.7" N	80° 1 2' 57.4" W	5/22/2010	Turn On Production Date
	37-125-23829	8/17/2009	40° 7' 21.6" N	80° 1 2' 57.7" W	5/22/2010	Turn On Production Date
	37-125-23794	8/4/2009	40° 7' 21.5" N	80° 12 ' 57.6" W	5/20/2010	Turn On Production Date
	37-125-23797	7/16/2009	40° 7' 21" N	80° 12' 57.5" W	5/20/2010	Turn On Production Date
	37-125-24207	7/21/2010	40° 4' 32.92" N	80° 14' 44.52" W	3/12/2011	TD Date
	37-125-24046	7/20/2010	40° 4' 33" N	80° 14' 44.4" W	3/19/2011	TD Date
	37-125-24175	7/21/2010	40° 4' 32.77" N	80° 14' 44.69" W	3/3/2011	TD Date
	37-125-24045	7/21/2010	40° 4' 33.2" N	80° 14' 44.2" W	2/21/2011	TD Date
	37-125-22088	6/18/2005	40° 16' 47.028" N	80° 17' 33.575" W	3/21/2006	Turn On Production Date
	37-125-22238	8/21/2006	40° 17' 4" N	80 ° 17' 31.5" W	12/13/2007	Turn On Production Date
	37-125-22629	6/6/2007	40° 16' 44" N	80 ° 17' 49.8" W	7/20/2007	Turn On Production Date
Run Hunting Club Unit 1H	37-081-20219	6/9/2010	41° 19' 58.82" N	77° 17' 29.37" W	3/20/2011	Completions Date
Run Hunting Club Unit 2H	37-081-20220	7/8/2010	41° 19' 58.6" N	77° 17' 29.3" W	3/27/2011	Completions Date
Run Hunting Club Unit 3H	37-081-20329	9/27/2010	41° 19' 58.43" N	77° 17' 29.24" W	3/26/2011	Completions Date
[redacted]	37-125-23888	1/4/2010	40° 19' 13.1" N	80° 18' 8.4" W	4/19/2011	Turn On Production Date
	37-125-23889	1/4/2010	40° 19' 13.3" N	80° 18' 8.3" W	4/19/2011	Turn On Production Date
	37-125-23853	12/29/2009	40° 19' 13.4" N	80° 18' 8.2" W	4/21/2011	Turn On Production Date

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Well Name	API #	Orig Spud Date	Latitude (DMS)	Longitude (DMS)	Date	Type 1
[redacted]	37-125-23890	1/4/2010	40° 19' 13.6" N	80° 18' 8" W	4/25/2011	Turn On Production Date
	37-125-23891	1/4/2010	40° 19' 13" N	80° 18' 8" W	4/26/2011	Turn On Production Date
	37-125-23829	1/4/2010	40° 19' 13.7" N	80° 18' 7.8" W	4/28/2011	Turn On Production Date
	37-125-23893	6/16/2010	40° 19' 13" N	80° 18' 8.3" W	4/29/2011	Turn On Production Date
	37-125-23894	6/16/2010	40° 19' 13.2" N	80° 18' 8.2" W	4/30/2011	Turn On Production Date
	37-015-20062		41° 57' 8.352" N	76° 39' 36.072" W	1/1/2008	Temporarily Abandon Date
	37-125-23008	4/10/2008	40° 14' 37.7" N	80° 16' 45.9" W	2/1/2009	Turn On Production Date
	37-125-23130	4/12/2008	40° 14' 37.7" N	80° 16' 46" W	2/1/2009	Turn On Production Date
	37-125-22720	2/5/2008	40° 15' 15.1" N	80° 19' 15.7" W	2/6/2008	Suspend Operations Date
	37-125-22721	7/17/2008	40° 15' 15.1" N	80° 19' 16" W	2/1/2009	Turn On Production Date
	37-125-22722	7/23/2008	40° 15' 15.1" N	80° 19' 16.2" W	12/8/2009	Plug & Abandon Date
	37-125-22723	8/11/2007	40° 15' 15" N	80° 19' 16.4" W	12/4/2007	Turn On Production Date
	37-125-23697	7/16/2009	40° 17' 0.7" N	80° 13' 38.4" W	3/6/2010	Turn On Production Date
	37-125-23643	7/16/2009	40° 17' 0.7" N	80° 13' 38.6" W	3/4/2010	Turn On Production Date
	37-125-23637	7/17/2009	40° 17' 0.6" N	80° 13' 38.4" W	3/4/2010	Turn On Production Date
	37-125-23638	7/20/2009	40° 17' 0.7" N	80° 13' 38.2" W	3/4/2010	Turn On Production Date
	37-125-23759	7/20/2009	40° 17' 0.8" N	80° 13' 38.2" W	3/5/2010	Turn On Production Date
	37-125-22317	7/15/2006	40° 15' 46.3" N	80° 19' 51.1" W	12/19/2006	Turn On Production Date
	34-067-20376		40° 24' 52.668" N	80° 59' 58. 055" W	1/1/2008	TD Date
	37-125-23908	3/29/2010	40° 18' 21" N	80° 14' 0.03" W	6/8/2010	Suspend Operations Date
	37-125-23994	3/26/2010	40° 18' 20.9" N	80° 14' 0.02" W	5/7/2010	Suspend Operations Date
	37-125-23909	3/29/2010	40° 18' 20.7" N	80° 14' 0.02" W	6/3/2010	Suspend Operations Date
	37-125-24165	7/8/2010	40° 3' 48.09" N	80° 12' 15.49" W	4/30/2011	Completions Date
	37-125-24164	7/9/2010	40° 3' 48.02" N	80° 12' 15.25" W	4/29/2011	Completions Date
	37-125-23196	8/12/2008	40° 11' 46.2" N	80° 21' 6.5" W	10/30/2009	Turn On Production Date
	37-125-23979	7/1/2010	40° 11' 45.5" N	80° 21' 6.5" W	4/17/2011	Turn On Production Date
	37-125-24029	7/1/2010	40° 11' 46.9" N	80° 21' 6.3" W	4/21/2011	Turn On Production Date
nklin Lakeview Estates Unit 10H	37-125-24200	1/14/2011	40° 8' 28.39" N	80° 15' 42.21" W	1/14/2011	Suspend Operations Date
nklin Lakeview Estates Unit 11H	37-125-24201	1/14/2011	40° 8' 28.53" N	80° 15' 42.04" W	5/1/2011	Suspend Operations Date
nklin Lakeview Estates Unit 12H	37-125-24220	9/28/2010	40° 9' 4.4" N	80° 15' 9.32" W	2/10/2011	Suspend Operations Date
nklin Lakeview Estates Unit 13H	37-125-24221	1/5/2011	40° 9' 4.25" N	80° 15' 10.06" W	1/21/2011	Suspend Operations Date
nklin Lakeview Estates Unit 14H	37-125-24139	9/28/2010	40° 9' 4.45" N	80° 15' 9.6" W	2/6/2011	Suspend Operations Date
nklin Lakeview Estates Unit 15H	37-125-24138	9/29/2010	40° 9' 4.5" N	80° 15' 9.35" W	11/3/2010	Suspend Operations Date
nklin Lakeview Estates Unit 1H	37-125-24198	1/13/2011	40° 8' 28.02" N	80° 15' 42.45" W	3/26/2011	Suspend Operations Date
nklin Lakeview Estates Unit 2H	37-125-24199	1/14/2011	40° 8' 28.47" N	80° 15' 41.95" W	4/20/2011	Suspend Operations Date
nklin Lakeview Estates Unit 3H	37-125-24307	1/14/2011	40° 8' 28.32" N	80° 15' 42.12" W	4/8/2011	Suspend Operations Date
nklin Lakeview Estates Unit 4H	37-125-23948	6/10/2010	40° 9' 4.3" N	80° 15' 10.1" W	2/16/2011	Suspend Operations Date
nklin Lakeview Estates Unit 5H	37-125-23946	6/11/2010	40° 9' 4.4" N	80° 15' 9.8" W	1/31/2011	Suspend Operations Date
nklin Lakeview Estates Unit 6H	37-125-23939	6/9/2010	40° 9' 4.3" N	80° 15' 10.3" W	1/28/2011	Suspend Operations Date
nklin Lakeview Estates Unit 7H	37-125-24322	1/14/2011	40° 8' 28.17" N	80° 15' 42.29" W	3/14/2011	Suspend Operations Date
[redacted]	37-081-20535	4/5/2011	41° 17' 46.34" N	77° 13' 14.23" W	4/15/2011	Resume Operations Date
eral Refractories 5	37-051-21294	10/1/2007	40° 5' 3.529" N	79° 42' 32.519" W	10/31/2007	Turn On Production Date
[redacted]	37-081-20164	3/2/2010	41° 18' 8.3" N	77° 18' 24.8" W	2/20/2011	Turn On Production Date
	37-081-20156	3/26/2010	41° 18' 8.2" N	77° 18' 24.6" W	2/16/2011	Turn On Production Date
	37-081-20150	3/27/2010	41° 18' 8.2" N	77° 18' 24.3" W	2/16/2011	Turn On Production Date
	37-081-20151	3/27/2010	41° 18' 8.1" N	77° 18' 24.1" W	2/16/2011	Turn On Production Date
	37-081-20215	3/2/2010	41° 18' 7.9" N	77° 18' 24" W	2/16/2011	Turn On Production Date
	37-125-23100	5/23/2008	40° 14' 38.5" N	80° 18' 34.5" W	11/14/2008	Turn On Production Date
	37-125-23898	11/12/2009	40° 14' 38.2" N	80° 18' 34.8" W	4/21/2010	TD Date
	37-125-23899	11/11/2009	40° 14' 38.2" N	80° 18' 34.7" W	3/24/2010	TD Date
	37-125-23900		40° 14' 38" N	80° 18' 34.8 " W	11/12/2009	Suspend Operations Date
	37-125-23935	11/12/2009	40° 14' 38" N	80° 18' 35" W	6/27/2010	Turn On Production Date
	37-125-23901	11/11/2009	40° 14' 37.9" N	80° 18' 35.1" W	6/27/2010	Turn On Production Date
	37-125-23875	12/16/2009	40° 14' 24.6" N	80° 27' 52.5" W	9/5/2010	Turn On Production Date
	37-125-23876	12/16/2009	40° 14' 24.6" N	80° 27' 52.7" W	9/5/2010	Turn On Production Date
	37-125-23877	12/14/2009	40° 14' 24.4" N	80° 27' 53.1" W	1/25/2010	Plug & Abandon Date
	37-125-22990	5/12/2009	40° 14' 25.4" N	80° 27' 51.4" W	8/4/2009	Turn On Production Date
	37-125-23870	12/14/2009	40° 14' 24.4" N	80° 27' 53.4" W	9/5/2010	Turn On Production Date
	37-125-23871	12/14/2009	40° 14' 24.5" N	80° 27' 52.9" W	9/5/2010	Turn On Production Date
	37-125-23872	2/6/2010	40° 14' 24.5" N	80° 27' 53.2" W	9/5/2010	Turn On Production Date
USA 40H	37-027-21629	12/17/2010	41° 3' 2.2" N	77° 54' 30.5" W	4/11/2011	Completions Date
USA 9	37-027-21117	8/19/2007	41° 0' 23.747" N	77° 57' 39.448" W	12/16/2007	Turn On Production Date
[redacted]	37-125-22212	1/8/2007	40° 16' 33.1" N	80° 18' 28.4" W	9/30/2010	Plug & Abandon Date
	37-125-22941	12/13/2007	40° 16' 26.4" N	80° 19' 6.1" W	2/20/2008	Turn On Production Date

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Well Name	API #	Orig Spud Date	Latitude (DMS)	Longitude (DMS)	Date	Type 1
	37-125-22261	12/5/2005	40° 16' 21.8" N	80 ° 18' 51.8" W	6/3/2006	Turn On Production Date
	37-125-22259	2/25/2006	40° 16' 59.2" N	80 ° 18' 11.4" W	3/20/2011	Plug & Abandon Date
	37-125-22300	5/2/2007	40° 16' 20.7" N	80° 18' 48.3" W	2/23/2008	Turn On Production Date
	37-125-22639	5/29/2007	40° 16' 20.6" N	80 ° 18' 31.9" W	8/19/2007	Turn On Production Date
	37-059-24798	8/15/2008	39° 48' 54.5" N	8 0° 0' 16.4" W	12/20/2010	Turn On Production Date
	37-059-24661	4/20/2008	39° 48' 54.6" N	8 0° 0' 16.4" W	11/16/2010	Turn On Production Date
H	37-081-20292	2/12/2011	41° 14' 2 2.14" N	76° 40' 19.19" W	3/15/2011	Suspend Operations Date
	37-129-25004	9/23/2008	40° 9' 32.3" N	79° 42' 7.4" W	12/3/2008	Shut-In Date
	37-125-22471	3/6/2007	40° 17' 44.3" N	80° 17' 53.6" W	4/17/2007	Turn On Production Date
	37-125-22472	3/19/2007	40° 17' 54.8" N	80° 17' 31.7" W	5/17/2007	Turn On Production Date
	37-125-22882	9/13/2007	40° 17' 56.6" N	80° 17' 48.4" W	2/29/2008	Turn On Production Date
	37-125-23923	4/9/2010	40° 9' 5 .3" N	80° 24' 57.2" W	3/23/2011	TD Date
	37-125-24000	5/3/2010	40° 9' 5 .3" N	80° 24' 57.1" W	3/31/2011	TD Date
	37-125-24001	4/16/2010	40° 9' 5.1" N	80° 24' 57" W	3/11/2011	TD Date
	37-125-24002	4/15/2010	40° 9' 4.9" N	80° 24' 56.9" W	1/25/2011	TD Date
	37-125-23922	4/15/2010	40° 9' 4.5" N	80° 24' 56.8" W	2/7/2011	TD Date
	37-125-23921	4/15/2010	40° 9' 4.5" N	80° 24' 56.9" W	2/18/2011	TD Date
	37-125-23920	4/15/2010	40° 9' 4.5" N	80° 24' 56.9" W	4/6/2011	TD Date
	37-125-23919	4/16/2010	40° 9' 4.9" N	80° 24' 57.1" W	3/2/2011	TD Date
	37-125-24003	5/3/2010	40° 9' 5 .1" N	80° 24' 57.1" W	1/10/2011	TD Date
	37-125-23690	5/15/2009	40° 14' 55 " N	80° 15' 47.6" W	12/15/2009	Turn On Production Date
	37-125-23032	4/23/2008	40° 14' 54 .9" N	80° 15' 48.2" W	12/15/2009	Turn On Production Date
	37-125-23735	8/5/2009	40° 14' 55" N	80° 15' 47.4" W	12/15/2009	Turn On Production Date
	37-125-23691	5/16/2009	40° 14' 55 " N	80° 15' 48.2" W	12/20/2009	Turn On Production Date
	37-125-23822	8/20/2009	40° 14' 55 .1" N	80° 15' 47.4" W	12/15/2009	Turn On Production Date
	37-125-23692	5/16/2009	40° 14' 55 " N	80° 15' 47.8" W	12/15/2009	Turn On Production Date
	37-059-24131	4/10/2007	39° 48' 15.51" N	79° 58 ' 7.011" W	10/12/2007	Turn On Production Date
	37-059-24562	1/28/2008	39° 48' 38.4" N	79° 58 ' 3.5" W	7/10/2008	Turn On Production Date
	37-125-23328	12/16/2008	40° 10' 23.5" N	80° 3' 11" W	5/29/2009	Shut-In Date
	37-125-23934	1/19/2010	40° 10' 25.5" N	80° 3' 10.8" W	10/2/2010	Shut-In Date
	37-125-24026	3/30/2010	40° 10' 25.09" N	80° 3' 10.84" W	10/5/2010	Shut-In Date
	37-125-23157	6/10/2008	40° 14' 35.6" N	80° 19' 17.4" W	3/3/2009	Turn On Production Date
	37-125-23158	6/21/2008	40° 14' 35.5" N	80° 19' 17.5" W	3/3/2009	Turn On Production Date
	37-125-24337	3/12/2011	40° 23' 5.55" N	80° 16' 41" W	3/13/2011	Suspend Operations Date
	37-125-24171	3/12/2011	40° 23' 5.55" N	80° 16' 41.95" W	3/13/2011	Suspend Operations Date
	37-125-24338	3/12/2011	40° 23' 5.54" N	80° 16' 41" W	3/13/2011	Suspend Operations Date
	37-125-24173	3/12/2011	40° 23' 5.54" N	80° 16' 40.92" W	3/13/2011	Suspend Operations Date
	37-125-24196	3/12/2011	40° 23' 5.65" N	80° 16' 41.95" W	4/6/2011	Suspend Operations Date
	37-125-24197	3/11/2011	40° 23' 5.65" N	80° 16' 41.69" W	4/15/2011	Suspend Operations Date
	37-125-24174	3/13/2011	40° 23' 5.64" N	80° 16' 41.43" W	3/14/2011	Suspend Operations Date
	37-059-24935	1/22/2009	39° 49' 23" N	80° 1' 21.6" W	6/5/2009	Shut-In Date
	37-125-23158	12/14/2008	39° 49' 50 .7" N	80° 1' 23.9" W	6/5/2009	Shut-In Date
	37-125-24017	6/29/2010	40° 3' 58.59" N	79° 56' 47.94" W	3/1/2011	Completions Date
	37-125-24120	6/29/2010	40° 3' 58.56" N	79° 56' 48.19" W	3/1/2011	Completions Date
H	37-125-23861	11/19/2009	40° 16' 33" N	80° 14' 22.3" W	9/19/2010	Turn On Production Date
H	37-125-23860	11/19/2009	40° 16' 33.2" N	80° 14' 22.3" W	9/19/2010	Turn On Production Date
	37-125-22758	8/13/2007	40° 16' 37.5" N	80° 14' 24.9" W	12/31/2008	Turn On Production Date
	37-125-22874	9/16/2007	40° 16 ' 35.1" N	80° 14' 6.2" W	10/25/2008	Turn On Production Date
	37-125-22752	12/16/2007	40° 17' 0.7" N	80° 13' 39.3" W	12/16/2008	Turn On Production Date
	37-125-23040	3/28/2008	40° 16' 37.6" N	80° 14' 24.7" W	11/18/2008	Turn On Production Date
	37-125-23041	4/10/2008	40° 16' 37.6" N	80° 14' 24.5" W	11/2/2008	Turn On Production Date
	37-125-24113	1/15/2011	40° 1' 46.19" N	80° 12' 51.44" W	4/8/2011	Suspend Operations Date
	37-125-24114	1/15/2011	40° 1' 46.03" N	80° 12' 51.29" W	3/26/2011	Suspend Operations Date
	37-125-24297	1/15/2011	40° 1' 45.7" N	80° 12' 50.99" W	2/15/2011	Suspend Operations Date
	37-125-24115	3/17/2011	40° 1' 46.08" N	80° 12' 51.18" W	4/19/2011	Suspend Operations Date
	37-125-24116	3/18/2011	40° 1' 45.92" N	80° 12' 51.03" W	4/28/2011	Suspend Operations Date
	37-125-24117	3/18/2011	40° 1' 45.6" N	80° 12' 50.74" W	4/30/2011	Resume Operations Date
	37-125-24118	1/14/2011	40° 1' 45.86" N	80° 12' 51.14" W	2/28/2011	Suspend Operations Date
	37-125-23274	11/10/2008	40° 12' 20.1" N	80° 25' 9.7" W	12/14/2009	Turn On Production Date
	37-125-23275	12/12/2008	40° 12' 19.9" N	80° 25' 9.6" W	11/23/2009	Turn On Production Date
	37-125-23640	4/4/2009	40° 12' 35.3" N	80 ° 25' 55.1" W	12/15/2009	Turn On Production Date
	37-125-23644	4/3/2009	40° 12' 19.559" N	80° 25' 9.63" W	11/20/2009	Turn On Production Date
H	37-125-23641	4/3/2009	40° 12' 20.109" N	80° 25' 9.571" W	11/18/2009	Turn On Production Date
H	37-125-23642	5/22/2009	40° 12' 20.3" N	8 0° 25' 9.6" W	11/17/2009	Turn On Production Date

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Well Name	API #	Orig Spud Date	Latitude (DMS)	Longitude (DMS)	Date	Type 1
[redacted]	37-125-23308	6/2/2009	40° 14' 38.9" N	80° 20' 30.9" W	2/4/2010	Turn On Production Date
	37-125-23367	6/2/2009	40° 14' 38.9" N	80° 20' 30.7" W	2/4/2010	Turn On Production Date
	37-125-23696	6/8/2009	40° 14' 38.9" N	80° 20' 30.5" W	2/4/2010	Turn On Production Date
	37-125-23695	6/13/2009	40° 14' 38.9" N	80° 20' 30.5" W	8/10/2009	TD Date
	37-125-23705	6/13/2009	40° 14' 38.8" N	80° 20' 30.7" W	2/4/2010	Turn On Production Date
	37-125-22637	6/7/2007	40° 17' 56.3" N	80° 22' 43.9" W	11/10/2008	Turn On Production Date
	37-125-24328	1/26/2011	40° 17' 56.94" N	80° 22' 46.45" W	3/4/2011	Suspend Operations Date
	37-125-24326	1/26/2011	40° 17' 56.88" N	80° 22' 46.55" W	3/21/2011	Suspend Operations Date
	37-125-24323	1/26/2011	40° 17' 57.19" N	80° 22' 46.88" W	3/27/2011	Suspend Operations Date
	37-125-24324	1/27/2011	40° 17' 57.1" N	80° 22' 46.62" W	3/11/2011	Suspend Operations Date
	37-125-24325	1/27/2011	40° 17' 56.79" N	80° 22' 46.29" W	2/24/2011	Suspend Operations Date
	37-125-23007	2/21/2008	40° 15' 20.3" N	80° 14' 14.7" W	10/21/2008	Turn On Production Date
e Walnut Hunting Club 10H	37-081-20317	1/4/2011	41° 18' 18.6" N	77° 17' 43.84" W	4/11/2011	TD Date
e Walnut Hunting Club 11H	37-081-20318	1/12/2011	41° 18' 18.4" N	77° 17' 44.13" W	4/28/2011	TD Date
e Walnut Hunting Club 9H	37-081-20316	3/17/2011			5/1/2011	Resume Operations Date
[redacted]	37-125-22600	6/21/2007	40° 15' 3.5" N	80° 22' 4.8" W	3/16/2008	Turn On Production Date
	37-125-23169	8/7/2008	40° 14' 37.6" N	80° 20' 50.4" W	8/7/2009	Turn On Production Date
	37-083-51202	10/13/2006	41° 46' 45.047" N	78° 1' 6" 20.604" W	1/5/2007	Turn On Production Date
	37-125-23798	7/7/2010	40° 12' 53.4" N	80° 29' 40.6" W	1/3/2011	TD Date
	37-125-24188	7/6/2010	40° 12' 53.5" N	80° 29' 40.5" W	1/11/2011	Suspend Operations Date
	37-125-23084	8/28/2008	40° 15' 27" N	80° 18' 37.7" W	1/8/2009	Turn On Production Date
	37-081-20063	2/20/2008	41° 22' 28.8" N	77° 8' 5.4" W	7/12/2008	TD Date
	37-081-20134	7/27/2009	41° 22' 28.8" N	77° 8' 5.2" W	2/17/2010	Shut-In Date
	37-125-24282	4/19/2011	40° 18' 16.04" N	80° 19' 38.27" W	4/20/2011	Suspend Operations Date
	37-125-24283	4/18/2011	40° 18' 15.77" N	80° 19' 38.67" W	4/19/2011	Suspend Operations Date
	37-125-24284	4/19/2011	40° 18' 15.94" N	80° 19' 38.52" W	4/20/2011	Suspend Operations Date
	37-125-24279	4/19/2011	40° 18' 16.26" N	80° 19' 38.23" W	4/20/2011	Suspend Operations Date
	37-125-24281	4/17/2011	40° 18' 15.56" N	80° 19' 38.71" W	4/18/2011	Suspend Operations Date
	34-123-43883	8/23/2007	41° 45' 36.756" N	79° 33 ' 15.876" W	10/26/2007	Turn On Production Date
	37-125-22582	3/28/2007	40° 19' 19.3" N	80° 20' 0.5" W	5/3/2007	Turn On Production Date
	37-125-23098	5/5/2008	40° 12' 34. 881" N	80° 19' 15.444" W	11/29/2010	Turn On Production Date
	37-125-23882	12/17/2009	40° 12' 55.5" N	80° 18' 52.7" W	11/29/2010	Turn On Production Date
	37-125-23881	12/17/2009	40° 12' 5 5.6" N	80° 18' 52.5" W	11/29/2010	Turn On Production Date
	37-125-23883	1/4/2010	40° 12' 55. 1" N	80° 18' 53.4" W	11/29/2010	Turn On Production Date
	37-125-23886	1/4/2010	40° 12' 55. 3" N	80° 18' 53.2" W	11/29/2010	Turn On Production Date
	37-125-23885	1/4/2010	40° 12' 55. 4" N	80° 18' 53" W	11/29/2010	Turn On Production Date
	37-125-23887	1/4/2010	40° 12' 55. 7" N	80° 18' 52.3" W	11/29/2010	Turn On Production Date
	37-125-23763	9/26/2009	40° 14' 28 .6" N	80° 21' 55.4" W	5/14/2010	Turn On Production Date
	37-125-23764	9/28/2009	40° 14' 28 .4" N	80° 21' 55.4" W	5/14/2010	Turn On Production Date
	37-125-23765	9/29/2009	40° 14' 28 .2" N	80° 21' 55.4" W	5/18/2010	Turn On Production Date
	37-125-23873	11/5/2009	40° 14' 28 .1" N	80° 21' 55.4" W	5/18/2010	Turn On Production Date
	37-125-22799	11/7/2007	40° 16' 18.5" N	80° 17' 54.4" W	1/19/2008	Turn On Production Date
	37-125-22801	9/12/2008	40° 16' 10.5" N	80° 18' 7.2" W	3/9/2009	Turn On Production Date
awk Lodge Unit 5H	37-035-21202	8/22/2010	41° 13' 50.44" N	77° 28' 3.79" W	10/15/2010	TD Date
[redacted]	37-125-22410	8/31/2006	40° 15' 37.2" N	80° 30' 11.3" W	4/9/2009	Turn On Production Date
	37-125-22401	8/14/2006	40° 17' 9.1" N	80° 19' 17.3" W	11/4/2006	Turn On Production Date
	37-125-22620	4/13/2007	40° 17' 32.4" N	80° 19' 28.6" W	5/10/2007	Turn On Production Date
	34-019-21972	8/17/2007	40° 38' 15.648" N	80° 59' 45.815" W	8/17/2007	Spud Date
ntz Fishing Club 1	37-081-20057	10/16/2007	41° 19' 18.459" N	77° 17' 52.706" W	3/28/2011	Turn On Production Date
ntz Fishing Club 18H	37-081-20480	4/25/2011			4/25/2011	Suspend Operations Date
ntz Fishing Club 19H	37-081-20481	4/25/2011			4/25/2011	Suspend Operations Date
ntz Fishing Club 20H	37-081-20482	4/25/2011			4/25/2011	Suspend Operations Date
ntz Fishing Club 21H	37-081-20483	4/25/2011			4/25/2011	Suspend Operations Date
ntz Fishing Club 22H	37-081-20484	4/25/2011			4/25/2011	Suspend Operations Date
ntz Fishing Club 23H	37-081-20485	4/25/2011			4/26/2011	Suspend Operations Date
ntz Fishing Club 3H	37-081-20067	3/26/2008	41° 19' 23.6" N	77° 17' 31.4" W	1/8/2010	Shut-In Date
ntz Fishing Club 7H	37-081-20387	11/2/2010	41° 19' 23.33" N	77° 17' 29.74" W	4/4/2011	Completions Date
ntz Fishing Club 8H	37-081-20386	11/3/2010	41° 19' 23.18" N	77° 17' 29.57" W	1/16/2011	TD Date
ntz Fishing Club 9H	37-081-20385	11/4/2010	41° 19' 12.03" N	77° 17' 29.4" W	4/4/2011	Completions Date
ntz Fishing Club Unit 12H	37-081-20235	7/20/2010	41° 19' 53.5" N	77° 16' 57.1" W	3/16/2011	TD Date
ntz Fishing Club Unit 13H	37-081-20246	7/21/2010	41° 19' 53.9" N	77° 16' 56.1" W	4/3/2011	TD Date
ntz Fishing Club Unit 14H	37-081-20236	7/20/2010	41° 19' 53.3" N	77° 16' 57" W	2/27/2011	TD Date
ntz Fishing Club Unit 16H	37-081-20238	7/22/2010	41° 19' 54" N	77° 16' 57.4" W	4/20/2011	TD Date
ntz Fishing Club Unit 17H	37-081-20239	7/22/2010	41° 19' 53.8" N	77° 16' 57.3" W	4/13/2011	TD Date

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Well Name	API #	Orig Spud Date	Latitude (DMS)	Longitude (DMS)	Date	Type 1
o Valley LBC Unit 1	37-125-22420	10/19/2006	40° 16' 4.9" N	80° 20' 52.3" W	12/21/2006	Turn On Production Date
o Valley LBC Unit 11H	37-125-24148	11/16/2010	40° 16' 37.5" N	80° 20' 59.15" W	11/17/2010	Suspend Operations Date
o Valley LBC Unit 12H	37-125-24147	11/16/2010	40° 16' 37.67" N	80° 20' 59.27" W	11/17/2010	Suspend Operations Date
o Valley LBC Unit 14H	37-125-24146	11/16/2010	40° 16' 37.37" N	80° 20' 58.91" W	4/26/2011	Resume Operations Date
o Valley LBC Unit 15H	37-125-24149	11/16/2010	40° 16' 37.85" N	80° 20' 59.39" W	11/17/2010	Suspend Operations Date
o Valley LBC Unit 16H	37-125-24144	11/16/2010	40° 16' 37.32" N	80° 20' 59.03" W	11/17/2010	Suspend Operations Date
o Valley LBC Unit 2	37-125-22414	11/29/2006	40° 16' 30.3" N	80° 20' 35.2" W	1/10/2007	Turn On Production Date
o Valley LBC Unit 3	37-125-22415	10/7/2006	40° 16' 36" N	80° 21' 15.5" W	12/28/2006	Turn On Production Date
o Valley LBC Unit 4	37-125-22433	6/15/2007	40° 16' 16.3" N	80° 21' 13.4" W	2/12/2007	Turn On Production Date
o Valley LBC Unit 6	37-125-22495	12/22/2006	40° 16' 27.6" N	80° 20' 58.7" W	3/14/2007	Turn On Production Date
o Valley LBC Unit 8H	37-125-24145	11/15/2010	40° 16' 38.02" N	80° 20' 59.51" W	11/16/2010	Suspend Operations Date
[redacted]	37-125-22532	4/12/2007	40° 16' 13.7" N	80° 20' 21.3" W	5/15/2007	Turn On Production Date
	37-125-22533	4/30/2007	40° 16' 13.8" N	80° 19' 58.9" W	6/2/2007	Turn On Production Date
	37-125-22536	5/11/2007	40° 15' 49.2" N	80° 20' .43" W	6/17/2007	Turn On Production Date
	37-125-22537	5/12/2007	40° 15' 36.2" N	80° 20' 20.2" W	7/11/2007	Turn On Production Date
	37-125-23357	6/25/2009	40° 15' 36.1" N	80° 20' 15.6" W	3/20/2010	Turn On Production Date
	37-125-23358	6/25/2009	40° 15' 36" N	80° 20' 1 5.9" W	3/20/2010	Turn On Production Date
	37-125-23596	9/14/2010	40° 16' 23.89" N	80° 15' 30.13" W	4/15/2011	TD Date
	37-125-24248	9/13/2010	40° 16' 23.7" N	80° 15' 30.13" W	12/21/2010	Suspend Operations Date
	37-125-24249	9/13/2010	40° 16' 23.1" N	80° 15' 30.1" W	4/21/2011	TD Date
	37-125-24250	9/13/2010	40° 16' 23.3" N	80° 15' 30.11" W	5/1/2011	TD Date
	37-125-24251	9/13/2010	40° 16' 23.5" N	80° 15' 30.12" W	4/8/2011	TD Date
	37-125-22899	2/22/2008	40° 16' 16" N	80° 15' 8.4" W	4/1/2008	TD Date
	37-125-23359	11/4/2008	40° 16' 3 5.5" N	80° 15' 0.2" W	4/23/2009	Turn On Production Date
	37-125-22897	1/13/2008	40° 16' 2 7.8" N	80° 15' 14" W	10/24/2008	Turn On Production Date
	37-125-23056	3/12/2008	40° 16' 2 7.8" N	80° 15' 13.7" W	3/23/2009	Turn On Production Date
	37-125-23057	10/25/2008	40° 16' 35.6" N	80° 15' 0.2" W	4/23/2009	Turn On Production Date
	37-125-22942	11/12/2007	40° 15' 16" N	80° 14' 54.6" W	10/23/2008	Turn On Production Date
	37-125-22991	7/26/2008	40° 15' 30" N	80° 14' 53.3" W	4/5/2009	Turn On Production Date
	37-125-22900	10/3/2007	40° 17' 1.6" N	8 0° 17' 52.7" W	11/19/2007	Turn On Production Date
	37-125-22505	8/21/2007	40° 17' 25.2" N	8 0° 17' 42.7" W	10/22/2007	Turn On Production Date
	37-125-22664	9/1/2007	40° 17' 22.9" N	80° 17' 53.9" W	10/23/2007	Turn On Production Date
	37-125-24273	1/4/2011	40° 5' 27.01" N	8 0° 14' 44.27" W	1/5/2011	Suspend Operations Date
	37-125-24274	1/4/2011	40° 5' 27.15" N	80° 14' 45.02" W	2/3/2011	Suspend Operations Date
	37-125-24276	1/4/2011	40° 5' 27.05" N	80° 14' 44.52" W	1/5/2011	Suspend Operations Date
	37-125-24298	1/4/2011	40° 5' 26.91" N	80° 14' 44.3" W	1/5/2011	Suspend Operations Date
	37-125-22074	5/31/2003	40° 16' 59.3" N	80° 17' 3 .3" W	12/7/2005	Turn On Production Date
	37-125-22205	7/13/2005	40° 16' 36.8" N	80° 17' 1 1.5" W	3/3/2006	Turn On Production Date
	37-125-22705	6/14/2007	40° 16' 51.4" N	80° 16' 5 3.1" W	7/20/2007	Turn On Production Date
	37-125-23639	5/13/2009	40° 17' 32.9" N	80° 17' 55" W	8/17/2009	Turn On Production Date
	37-125-22277	9/22/2006	40° 15' 31.5" N	80° 21' 36.4" W	12/7/2006	Turn On Production Date
	37-125-22283	4/26/2006	40° 15' 8.3" N	80° 21' 11.8" W	11/17/2006	Turn On Production Date
	37-125-22548	4/30/2007	40° 15' 22.3" N	80° 20' 54.4" W	3/21/2011	Plug & Abandon Date
	37-125-23525	10/5/2010	40° 15' 55.9" N	80° 21' 45.9" W	10/19/2010	Suspend Operations Date
	37-125-23928	10/5/2010	40° 15' 55.7" N	80° 21' 45.8" W	10/30/2010	Suspend Operations Date
	37-125-23929	10/6/2010	40° 15' 55.2" N	80° 21' 45.4" W	12/11/2010	Suspend Operations Date
	37-125-23930	10/6/2010	40° 15' 55.6" N	80° 21' 45.7" W	4/29/2011	TD Date
	37-125-23931	10/6/2010	40° 15' 55.4" N	80° 21' 45.6" W	11/22/2010	Suspend Operations Date
	37-125-23913	4/21/2010	40° 13' 19.6" N	80° 25' 6.3" W	10/18/2010	Suspend Operations Date
	37-125-23981	4/21/2010	40° 13' 19.4" N	80° 25' 6.2" W	11/12/2010	Suspend Operations Date
	37-125-23914	4/21/2010	40° 13' 19.4" N	80° 25' 6.3" W	10/12/2010	Suspend Operations Date
	37-125-23915	8/4/2010	40° 13' 19.2" N	80° 25' 6.3" W	11/23/2010	Suspend Operations Date
	37-125-23916	4/20/2010	40° 13' 19.8" N	80° 25' 6.4" W	10/30/2010	Suspend Operations Date
	37-125-23917	4/21/2010	40° 13' 19.8" N	80° 25' 6.5" W	10/20/2010	Suspend Operations Date
	37-125-23918	4/21/2010	40° 13' 19.6" N	80° 25' 6.4" W	10/16/2010	Suspend Operations Date
	37-125-23980	4/22/2010	40° 13' 19.2" N	80° 25' 6.2" W	11/20/2010	Suspend Operations Date
	37-125-23982	4/22/2010	40° 13' 19" N	80° 25' 6.1" W	11/17/2010	Suspend Operations Date
ocken Hunt Club Unit 2H	37-081-20230	4/8/2011	41° 19' 42.54" N	77° 16' 8.79" W	4/10/2011	Resume Operations Date
ocken Hunt Club Unit 4H	37-081-20232	11/6/2010	41° 19' 42.73" N	77° 16' 8.86" W	2/2/2011	TD Date
ocken Hunt Club Unit 5H	37-081-20233	11/7/2010	41° 19' 41.9" N	77° 16' 9.8" W	4/3/2011	TD Date
ocken Hunt Club Unit 6H	37-081-20234	11/8/2010	41° 19' 42.35" N	77° 16' 8.73" W	3/2/2011	TD Date
[redacted]	37-125-23958	1/15/2010	40° 4' 42.5" N	80° 13' 28.1" W	2/28/2011	Turn On Production Date
	37-125-23959	1/15/2010	40° 4' 42.4" N	80° 13' 28" W	2/27/2011	Turn On Production Date
	37-125-23960	1/15/2010	40° 4' 42.6" N	80° 13' 27.8" W	10/4/2010	Plug & Abandon Date

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Well Name	API #	Ong Spud Date	Latitude (DMS)	Longitude (DMS)	Date	Type 1
[redacted]	37-125-23961	1/15/2010	40°4' 42.7" N	80°13' 27.9" W	10/5/2010	Plug & Abandon Date
	37-125-23852	12/3/2009	40°4' 42.2" N	80°13' 28.5" W	2/26/2011	Turn On Production Date
	37-125-23851	12/5/2009	40°4' 42.1" N	80°13' 28.4" W	2/27/2011	Turn On Production Date
	37-125-23850	12/5/2009	40°4' 42.2" N	80°13' 28.3" W	10/8/2010	Plug & Abandon Date
	37-125-23849	12/4/2009	40°4' 42.3" N	80°13' 28.4" W	2/22/2011	Turn On Production Date
	37-125-24024	4/9/2010	40°4' 42.7" N	80°13' 27.6" W	2/18/2011	Turn On Production Date
	37-125-24023	4/9/2010	40°4' 42.8" N	80°13' 27.7" W	2/18/2011	Turn On Production Date
	37-125-23937	12/5/2009	40°4' 41.7" N	80°13' 29.1" W	3/14/2011	Turn On Production Date
	37-125-23938	12/5/2009	40°4' 41.9" N	80°13' 28.9" W	3/21/2011	Turn On Production Date
	37-083-51996	12/7/2007	41°43' 48.416" N	78°3 3' 37.663" W	11/13/2008	Turn On Production Date
	34-039-21637		40°43' 36.011" N	80°44' 48.415" W	11/3/2007	Temporarily Abandon Date
	37-129-25012	9/29/2008	40°9' 21.6" N	79°4 3' 25.1" W	10/17/2008	Completions Date
	37-125-22619	5/10/2007	40°17' 5.5" N	80°21' 6.3" W	9/25/2007	Turn On Production Date
	37-125-22641	5/20/2007	40°17' 4.8" N	80°20' 48.3" W	9/18/2007	Turn On Production Date
	37-125-22688	8/19/2007	40°16' 59.8" N	80°20' 36.7" W	10/17/2007	Turn On Production Date
	37-125-22669	7/9/2007	40°17' 17.7" N	80°20' 44.4" W	9/26/2007	Turn On Production Date
yer/Space Management Unit	37-125-23941	1/15/2010	40°17' 16" N	80°12' 56.8" W	8/ 13/2011	Turn On Production Date
yer/Space Management Unit	37-125-23942	1/14/2010	40°17' 16.2" N	80°12' 56.9" W	3/10/2011	Turn On Production Date
yer/Space Management Unit 1H	37-125-23902	1/15/2010	40°17' 15.6" N	80°12' 56.9" W	3/21/2011	Turn On Production Date
yer/Space Management Unit 2H	37-125-23903	1/13/2010	40°17' 15.8" N	80°12' 56.9" W	3/20/2011	Turn On Production Date
yer/Space Management Unit 3H	37-125-23904	1/14/2010	40°17' 16" N	80°12' 56.9" W	3/17/2011	Turn On Production Date
yer/Space Management Unit 4H	37-125-23949	1/14/2010	40°17' 16.2" N	80°12' 56.8" W	3/6/2011	Turn On Production Date
yer/Space Management Unit 9H	37-125-23940	1/15/2010	40°17' 15.4" N	80°12' 56.8" W	3/6/2011	Turn On Production Date
[redacted]	37-015-20084		41°58' 41.483" N	76°38' 20.255 " W	1/1/2007	Temporarily Abandon Date
	37-081-20058	11/7/2007	41°18' 51" N	77°8 ' 31.9" W	5/3/2008	Shut-In Date
	37-125-23151	8/1/2008	40°13' 43.4" N	80°19' 19" W	9/9/2009	Turn On Production Date
	37-125-23224	8/8/2008	40°13' 43.2" N	80°19' 19.1" W	9/9/2009	Turn On Production Date
	37-125-24119	7/27/2010	40°13' 46.2" N	80°19' 23.8" W	4/16/2011	TD Date
	37-125-23975	7/27/2010	40°13' 45 .4" N	80°19' 23.8" W	2/28/2011	TD Date
	37 125-24329	12/9/2010	40°13' 46." N	80°19' 23.8" W	2/16/2011	TD Date
	37-125-23974	7/27/2010	40°13' 45 .8" N	80°19' 23.8" W	4/1/2011	TD Date
	37-125-23976	7/27/2010	40°13' 45 .6" N	80°19' 23.9" W	4/28/2011	TD Date
	37-125-24070	7/27/2010	40°13' 45 .4" N	80°19' 23.9" W	3/19/2011	TD Date
	37-125-23991	5/27/2010	40°14' 46.9" N	80°16' 13" W	4/26/2011	Completions Date
	37-125-23992	5/28/2010	40°14' 46.9" N	80°16' 13.2" W	4/26/2011	Completions Date
	37-125-24014	5/28/2010	40°14' 46.1" N	80°16' 13" W	2/10/2011	TD Date
	37-125-24015	5/28/2010	40°14' 46.5" N	80°16' 13" W	2/18/2011	TD Date
	37-125-23993	5/28/2010	40°14' 46.7" N	80°16' 13.2" W	4/27/2011	Completions Date
	34-125-24016	5/28/2010	40°14' 46.3" N	80°16' 13" W	1/3/2011	TD Date
	37-125-24245	8/27/2010	40°12' 25.63" N	80°23' 10.26" W	4/9/2011	TD Date
	37-125-24246	8/27/2010	40°12' 25.7" N	80°23' 10.02" W	12/22/2010	Suspend Operations Date
	37-125-24159	8/3/2010	40°12' 25 .48" N	80°23' 10.74" W	4/25/2011	TD Date
	37-125-24160	8/3/2010	40°12' 25 .55" N	80°23' 10.5" W	8/4/2010	Suspend Operations Date
	37-125-24253	8/28/2010	40°12' 25.87" N	80°23' 9.83" W	3/22/2011	TD Date
	37-125-24161	8/2/2010	40°12' 25 .8" N	80°23' 10.1" W	4/2/2011	TD Date
	37-125-24162	8/4/2010	40°12' 25 .72" N	80°23' 10.31" W	5/1/2011	TD Date
	37-125-24163	8/4/2010	40°12' 25 .6" N	80°23' 10.5" W	4/16/2011	TD Date
	37-125-24280	8/31/2010	40°12' 25.6" N	80°23' 10.8" W	3/13/2011	TD Date
	37-059-25514	12/8/2010	39°52' 43.99" N	80°22' 56.07" W	2/19/2011	TD Date
	37-125-23676	10/27/2009	40°16' 27.1" N	80°12' 59.6" W	6/3/2010	TD Date
	37-125-23811	10/27/2009	40°16' 27.7" N	80°12' 59.4" W	8/7/2010	Turn On Production Date
	37-125-23810	10/27/2009	40°16' 26.9" N	80°12' 59.6" W	5/11/2011	Completions Date
	37-125-23831	3/15/2010	40°16' 27.8" N	80°12' 59.4" W	8/7/2010	Turn On Production Date
	37-125-23907	11/12/2009	40°16' 27.5" N	80°12' 59.4" W	8/7/2010	Turn On Production Date
	37-125-23809	10/28/2009	40°16' 27.4" N	80°12' 59.5" W	8/7/2010	Turn On Production Date
	37-125-23194	10/22/2008	40°16' 41.9" N	80°16' 20.4" W	5/30/2009	Turn On Production Date
	37-125-24314	12/23/2010	40°5' 28.78" N	80°13' 40.23" W	1/16/2011	Suspend Operations Date
	37-125-24315	12/23/2010	40°5' 28.63" N	80°13' 40.07" W	1/28/2011	Suspend Operations Date
	37-125-23824	9/11/2009	40°5' 29.5" N	80°13' 41.2" W	2/18/2011	Turn On Production Date
	37-003-21982	12/20/2008	40°34' 20.191" N	79°48' 25.4" W	12/7/2010	Completions Date
	37-007-20293	9/28/2009	40°46' 29. 6" N	80°11' 0.05" W	3/27/2010	Shut-In Date
	37-125-22685	12/6/2007	40°10' 46.6" N	80°24' 24.2" W	1/15/2010	Turn On Production Date

ANGE RESOURCES

Well List Info for EPA Reporting

Attachment B

Well Name	API #	Orig Spud Date	Latitude (DMS)	Longitude (DMS)	Date	Type 1
[redacted]	125-23048	4/5/2008	40° 10' 44.2" N	80° 24' 40.2" W	7/2/2009	Turn On Production D ate

ATTACHMENT C

RANGE RESOURCES

February 25, 2010

Pennsylvania Department of Environmental Protection
Residual Waste Coordinator
Bureau of Waste Management
400 Waterfront Drive
Pittsburgh, Pennsylvania 15222

Subject: Form 26R, Chemical Analysis of Residual Waste Annual Report by the Generator
Range Resources – Appalachia, LLC
Residual Waste Code 402, Process Wastewaters – Non-hazardous

Dear Residual Waste Coordinator:

Range Resources – Appalachia, LLC (Range Resources) is submitting the enclosed Form 26R, Chemical Analysis of Residual Waste Annual Report by the Generator for our water (Residual Waste Code 420, Process Wastewaters – Non-hazardous). Note that 69,912,427 gallons of water were produced during calendar year 2009, but 43,515,805 gallons of water were re-used (or recycled) during the year. The volume of water recycled is reported in Section 2, Beneficial Use.

If you have any questions, or require any additional information, please call me at (724) 873-3226.

Respectfully submitted,

RANGE RESOURCES – APPALACHIA, LLC

Carla L. Suszkowski, P.E.
Regulatory and Environmental Manager

Range Resources – Appalachia LLC
380 Southpointe Blvd Suite 300 Canonsburg, PA 15317 Tel: (724) 743-6700 Fax: (724) 743-6790

Attachment C

RANGE RESOURCES

February 25, 2010

Pennsylvania Department of Environmental Protection
Residual Waste Coordinator
Bureau of Waste Management
208 West Third St., Suite 101
Williamsport, Pennsylvania 17701

Subject: Form 26R, Chemical Analysis of Residual Waste Annual Report by the Generator
Range Resources – Appalachia, LLC
Residual Waste Code 402, Process Wastewaters – Non-hazardous

Dear Residual Waste Coordinator:

Range Resources – Appalachia, LLC (Range Resources) is submitting the enclosed Form 26R, Chemical Analysis of Residual Waste Annual Report by the Generator for our water (Residual Waste Code 420, Process Wastewaters – Non-hazardous). Note that 69,912,427 gallons of water were produced in Pennsylvania during calendar year 2009, but 43,515,805 gallons of water were re-used (or recycled) during the year. The volume of water recycled is reported in Section 2, Beneficial Use.

If you have any questions, or require any additional information, please call me at (724) 873-3226.

Respectfully submitted,

RANGE RESOURCES – APPALACHIA, LLC

Carla L. Suszkowski, P.E.
Regulatory and Environmental Manager

Range Resources – Appalachia LLC
380 Southpointe Blvd Suite 300 Canonsburg, PA 15317 Tel: (724) 743-6700 Fax: (724) 743-6790

2540-PM-BWM0347 6/2005

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.	DEP USE ONLY
General Reference 287.54	Date Received & General Notes
Date Prepared/Revised February 22, 2010	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name Range Resources - Appalachia, LLC				
If a Subsidiary, Name of Parent Company				**EPA Generator ID#**
Company Mailing Address Line 1 380 Southpointe Blvd., Suite 300		**Company Mailing Address Line 2**		
Company Address Last Line – City Canonsburg	**State** PA	**Zip+4** 15317	**Phone** (724) 873-3226	**Ext** NA
Company Contact Last Name Suszkowski	**First Name** Carla	**MI** L	**Suffix**	
Municipality Cecil Township		**County** Washington		
Contact Phone (724) 873-3226	**Ext** NA	**Contact Email Address** csuszkowski@rangeresources.com		

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No

If 'No', describe location of waste generation and storage. Waste was generated during hydraulic fracturing operations at a Marcellus shale well site located in Cross Creek Township, Washington County, Pennsylvania

Municipality Cross Creek Twp. **County** Washington **State** PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
420	Process Wastewaters (Non-hazardous)	**69,912,427**	☐ cu yd ☒ gal ☐ lb ☐ ton	ANNUAL ☐ One Time

1. GENERAL PROPERTIES

a. pH Range 5.5 to 7.8 (based on analyses or knowledge)

b. Physical State
- ☒ Liquid Waste (EPA Method 9095)
- ☐ Solid (EPA Method 9095)
- ☐ Gas (ambient temperature & pressure)

c. Physical Appearance **Color** clear **Odor** none

Number of Solid or Liquid Phases of Separation 1

Describe each phase of separation. liquid

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	☒ Yes	☐ No	
b.	A detailed description of the waste sampling method is attached.	☐ Yes	☒ No	
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	☐ Yes	☒ No	
d.	The results of the hazardous waste determination is attached.	☒ Yes	☐ No	
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	☐ Yes	☐ No	☒ N/A

3. Process Description & Schematic Attachments

a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☒ Yes	☐ No	
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	☐ Yes	☒ No	
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	☐ Yes	☐ No	☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE

1. Processing or Disposal Facility(ies)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. Solid waste permit number(s) for processing or disposal facility being utilized.
Processing Facility Permit No. 301353

b.

Facility Name	Advanced Waste Services		
Address Line 1	101 River Park Drive		
Address Line 1			
Address City State ZIP	New Castle	PA	16101
Municipality	New Castle	County	Lawrence

c.

Facility Contact Name	Anthony Cialella		
Title			
Phone	414-475-3100	Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
3,276,485 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

a. Solid waste permit number(s) for processing or disposal facility being utilized.
Processing Facility Permit No. WMGR119

b.

Facility Name	Eureka Resources, LLC		
Address Line 1	301 Charles St.		
Address Line 1			
Address City State ZIP	S. Williamsport	PA	17702
Municipality		County	

c.

Facility Contact Name			
Title			
Phone		Email Address	

d. Volume of waste shipped to processing or disposal facility in the previous year.
771,680 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

2. Beneficial Use

a.	Has the waste been approved for beneficial use?		☐ Yes	☒ No
	If "Yes", list the general permit number or approval number.	Refer to the attached narrative		
b.	Volume of waste beneficially used in the previous year. 43,515,805 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)			

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ **I certify the information required in Section B-A, General Properties was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-B, Chemical Analysis was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ **I certify the information required in Section B-C, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.**

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official Carla L. Suszkowski

Title Regulatory and Environmental Manager

Signature _____

Date _____

SECTION C. MANAGEMENT OF RESIDUAL WASTE (CONTINUED)

1. PROCESSING OR DISPOSAL FACILITY(IES)

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**

b.
Facility Name Liquid Assets Disposal
Address Line 1 99 Peninsula St.
Address Line 1
Address City State ZIP Wheeling WV 26003
Municipality **County**

c.
Facility Contact Name Andy Kicinski
Title
Phone 724-222-6080 **Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
12,929,787 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
NPDES Permit No. PA0101508

b.
Facility Name Pennsylvania Brine Treatment
Address Line 1 5148 U.S. 322
Address Line 1
Address City State ZIP Franklin PA 16323
Municipality **County**

c.
Facility Contact Name Paul Hart
Title
Phone 814-437-3593 **Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
583,640 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
NPDES Permit No. PA0091472

b.
Facility Name Tunnelton Liquids Company
Address Line 1 671 Hogue Drive
Address Line 1
Address City State ZIP Saltsburg PA 15681
Municipality **County**

c.
Facility Contact Name Bruce Buffalini
Title
Phone 814-226-5016 **Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
334,496 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**

b.
Facility Name Virgin Oil & Water
Address Line 1 5752 W. Webb Road
Address Line 1
Address City State ZIP Youngstown OH 44515
Municipality **County**

c.
Facility Contact Name No longer in business
Title
Phone 330-744-9920 **Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
419,160 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

Attachment C

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**

b. **Facility Name** Somerset Production Company
Address Line 1 50 Fountain Plz Ste 1220
Address Line 1
Address City State ZIP Buffalo NY 14202
Municipality **County**

c. **Facility Contact Name** Jay Miller or Thomas O'Neill
Title
Phone 814-442-2943 or 716-842-1042 **Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
208,257 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
UIC Permit No. 3420

b. **Facility Name** [redacted]
Address Line 1
Address Line 1
Address City State ZIP Diamon OH 44412
Municipality **County**

c. **Facility Contact Name** [redacted]
Title
Phone

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
248,178 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

e. **Solid waste permit number(s) for processing or disposal facility being utilized.**

f. **Facility Name** Brineaway (Injection Well)
Address Line 1 19220 US Route 62
Address Line 1
Address City State ZIP Beloit OH 44609
Municipality **County**

g. **Facility Contact Name**
Title
Phone 330-938-2172 **Email Address**

h. **Volume of waste shipped to processing or disposal facility in the previous year.**
589,134 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

i. **Solid waste permit number(s) for processing or disposal facility being utilized.**

j. **Facility Name** Devco (Injection Well)
Address Line 1 221 ½ S. Sixth St.
Address Line 1
Address City State ZIP Byeville OH 43723
Municipality **County**

k. **Facility Contact Name** David Hill
Title
Phone 740-685-5168 **Email Address**

l. **Volume of waste shipped to processing or disposal facility in the previous year.**
29,400 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

Attachment C

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
UIC Permit No. 4096

b. **Facility Name** [redacted]
Address Line 1
Address Line 1
Address City State ZIP Paris OH 44669
Municipality **County**

c. **Facility Contact Name** [redacted]
Title
Phone [redacted] **Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
1,845,638 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
UIC Permit No. 2763

b. **Facility Name** [redacted]
Address Line 1
Address Line 1
Address City State ZIP Magnolia OH 44643
Municipality **County**

c. **Facility Contact Name** [redacted]
Title
Phone [redacted] **Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
21,294 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
UIC Permit No. 1198

b. **Facility Name** [redacted]
Address Line 1
Address Line 1
Address City State ZIP Diamon OH 44412
Municipality **County**

c. **Facility Contact Name** [redacted]
Title
Phone [redacted] **Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
980,695 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

a. **Solid waste permit number(s) for processing or disposal facility being utilized.**
UIC Permit No. 1076

b. **Facility Name** [redacted]
Address Line 1
Address Line 1
Address City State ZIP Paris OH 44669
Municipality **County**

c. **Facility Contact Name** [redacted]
Title
Phone [redacted] **Email Address**

d. **Volume of waste shipped to processing or disposal facility in the previous year.**
4,158,778 ☐ cu yd ☒ gal ☐ lb ☐ ton (check one)

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

RANGE RESOURCES – APPALACHIA, LLC

NARRATIVE

B. APPLICANT IDENTIFICATION

AMOUNT: The total volume of produced water generated during calendar year 2009 is 69,912,427 gallons, as reported. It should be noted that 43,455,805 gallons of produced waters were directly recycled by Range Resources in our day to day operations.

2. CHEMICAL ANALYSIS ATTACHMENTS

a. The results of a detailed chemical characterization of the waste is attached.

Detailed chemical analysis is attached and provides a representative analysis of produced/flowback water on Day 1, Day 5, Day 14, and Day 90. Additionally, a summary table of all analytical is also attached.

b. A detailed description of the waste sampling method is attached.

The sampling and analysis was conducted in accordance with the Sampling and Analysis Plan developed by the Appalachian Shale Water Conservation Management Committee, in conjunction with the PADEP. This Sampling and Analysis Plan was submitted to the PADEP for review and comment prior to initiating the program. As such, a copy of the plan is not attached to this Form 26R.

c. The quality assurance/quality control procedures employed by the laboratory are attached.

The laboratory utilized for this testing program is a Pennsylvania certified, NELAC accredited laboratory and the QA/QC procedures employed by the laboratory are those required to remain in compliance with their certifications. The QA/QC procedures are not attached to this submittal.

d. The results of the hazardous waste determination are attached.

The attached analytical results indicate that the waste is not a hazardous waste.

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

a. A detailed description of the manufacturing and/or pollution control processes producing the waste is attached.

The water is produced during the hydraulic fracturing of Marcellus Shale natural gas wells and during the time that the wells are in production.

Frac Volume (bbls)	77,995			
Cumulative Flowback (bbls)	3,272	10,830	12,331	17,413
Recovery Rate (%)	4%	14%	16%	22%

Constituents	Units	40 CFR 261 Appendix VIII		Cross Creek Unit #8H				Integrated
		Chemical Abstract No.	Hazardous Waste No.	Day 1	Day 5	Day 14	Day 90	Average
Acidity	mg/L	Not Applicable		ND	ND	122	388	124
Alkalinity	mg/L	Not Applicable		157	54	60.2	11.5	61
Aluminum	mg/L	Not Applicable		510	950	1450	2570	1383
Ammonia Nitrogen	mg/L	Not Applicable		60	115	135	168	122
Arsenic	mg/L	7440-38-2		0.037	0.078	0.083	0.109	0.080
Barium	mg/L	7440-39-3		19.200	77.1	83.1	87.2	69.7
Benzene	mg/L	71-43-2	U019	0.260	0.880	0.360	0.290	0.546
Beryllium	mg/L	7440-41-7	P015	ND	ND	ND	ND	ND
Biochemical Oxygen Demand	mg/L	Not Applicable		75	64.8	120	[illegible]	3672
Boron	mg/L	Not Applicable		13	12.2	14.7	12.7	13
Bromide	mg/L	Not Applicable		376	826	1040	1600	986
Cadmium	mg/L	7440-43-9		ND	0.002	0.005	0.003	0.002
Calcium	mg/L	Not Applicable		3980	8880	[illegible]	[illegible]	[illegible]
Chemical Oxygen Demand	mg/L	Not Applicable		2470	5170	8370	[illegible]	8800
Chlorides	mg/L	Not Applicable		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	mg/L	7440-47-3		0.011	0.039	0.033	0.016	0.027
Cobalt	mg/L	Not Applicable		11	ND	ND	ND	2
Copper	mg/L	Not Applicable		62	116	73	ND	68
Ethylene Glycol	mg/L	Not Applicable		ND	ND	ND	290	85
Hardness	mg/L	Not Applicable		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron Dissolved	mg/L	Not Applicable		11	46	47	74	47.6
Iron Total	mg/L	Not Applicable		12	50	75	69	50.4
Lead	mg/L	7439-92-1		0.025	0.061	0.106	ND	0.040
Lithium	mg/L	Not Applicable		34	56	86	105	69
Magnesium	mg/L	Not Applicable		394	881	1380	1830	1109
Manganese	mg/L	Not Applicable		2.39	4.68	7.32	8.99	5.74
MBAS	mg/L	Not Applicable		0.064	ND	0.465	0.699	0.256
Mercury	mg/L	7439-97-6		0.065	ND	ND	ND	0.012
Molybdenum	mg/L	Not Applicable		11.50	30.80	ND	ND	15.5
Nickel	mg/L	7440-02-0		15.3	26.4	ND	ND	14.3
Nitrite-Nitrate Nitrogen	mg/L	Not Applicable		0.45	0.34	0.25	ND	0.25
Oil & Grease	mg/L	Not Applicable		ND	20.4	9.9	802	244
pH		Not Applicable		6.4	6.4	6.2	5.9	6.2
Phenolics	mg/L	108-95-2	U188	0.058	0.016	ND	0.230	0.085
Selenium	mg/L	7782-49-2		ND	ND	ND	49.9	14.6
Silver	mg/L	7440-22-4		ND	ND	ND	ND	ND
Sodium	mg/L	Not Applicable		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Specific Conductance	umhos/cm	Not Applicable		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Strontium	mg/L	Not Applicable		539	1350	2100	3410	1863
Sulfates	mg/L	Not Applicable		102.0	60.7	89.3	32.8	62.8
Toluene	mg/L	108-88-3	U220	0.27	0.92	0.43	1.60	0.95
Total Dissolved Solids	mg/L	Not Applicable		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Kjeldahl Nitrogen	mg/L	Not Applicable		77.7	55.9	127	87.7	75.4
Total Suspended Solids	mg/L	Not Applicable		6.8	204	209	83	132
Zinc	mg/L	Not Applicable		0.132	0.106	0.123	0.218	0.145

Radiological Characaterization

Gross Alpha	pCi/L	Not Applicable				
Gross Beta	pCi/L	Not Applicable				
Radium 226	pCi/L	Not Applicable			861	1270
Radium 228	pCi/L	Not Applicable			655	1100
Thorium 227	pCi/L	Not Applicable			-49	2
Thorium 234	pCi/L	Not Applicable			10	150
Uranium 235	pCi/L	Not Applicable			-40	40
Uranium 238	pCi/L	Not Applicable			10	150

B - Estimated result. Result is less than RL.
E - Matrix interference.
U - Result is less than the sample detection limit.

<50 mg/L
>50 mg/L and <10,000 mg/L for constituents from 40 CFR 261.34 Appendix VIII
>10,000 mg/L

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. CC6H8H Day1

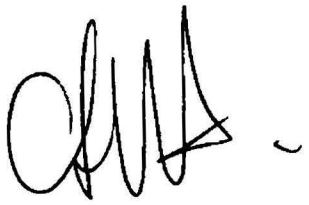
Table 2

Lot #: C9C270155

Tony Gaudlip

Range Resources Corporation
380 Southpointe Blvd
Suite 300
Canonsburg, PA 15317

TESTAMERICA LABORATORIES, INC.



Christina M. Kovitch
Project Manager

April 24, 2009

NELAC REPORTING:

At the time of analysis the laboratory was in compliance with the current NELAC standards and held accreditation for all analyses performed unless noted by a qualifier. The labs accreditation numbers are listed below. The format and contents of the report meets all applicable NELAC standards except as noted in the narrative and shall not be reproduced except in full, without the written approval of the laboratory. The table below presents a summary of the certifications held by TestAmerica Pittsburgh. Our primary accreditation authority for the Non-potable water and Solid & Hazardous waste programs is Pennsylvania DEP. A more detailed parameter list is available upon request. Please ask your project manager for this information when required.

Certifying State/Program	Certificate #	Program Types	TestAmerica
NFESC	NA	NAVY	X
US Dept of Agriculture	(#P330-07-00101)	Foreign Soil Import Permit	X
Arkansas	(#88-0690)	WW	X
		HW	X
California – NELAC	04224CA	WW	X
		HW	X
Connecticut	(#PH-0688)	WW	X
		HW	X
Florida – NELAC	(#E871008-04)	WW	X
		HW	X
Illinois – NELAC	(#002064)	WW	X
		HW	X
Kansas – NELAC	(#E-10350)	WW	X
		HW	X
Louisiana – NELAC	(#04041)	WW	X
		HW	X
New Hampshire – NELAC	(#203008)	WW	X
		--	--
New Jersey – NELAC	(PA-005)	WW	X
		HW	X
New York – NELAC	(#11182)	WW	X
		HW	X
North Carolina	(#434)	WW	X
		HW	X
Pennsylvania - NELAC	(#02-00416)	WW	X
		HW	X
South Carolina	(#89014002)	WW	X
		HW	X
Utah – NELAC	(STLP)	WW	X
		HW	X
West Virginia	(#142)	WW	X
		HW	X
Wisconsin	998027800	WW	X
		HW	X

The codes utilized for program types are described below:

HW Hazardous Waste certification
WW Non-potable Water and/or Wastewater certification
X Laboratory has some form of certification under the specific program. Many states certify laboratories for specific parameters or tests within a category. The information in the table indicates the lab is certified in a general category of testing. Please contact the laboratory if parameter specific certification information is required.

Updated: 2/5/2009 C:\Documents and Settings\derubeisn\My Documents\NELAC NARRATIVE Pttsburgh.doc

C9C270155

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

COC ID: KOVITCHC16660-1124-3

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Table 2	Quote #: [redacted] Range	Client:
Date:	3-27-09	Carrier/Waybill #:	
Project Manager:	Amanda Bayne	Table 2	
Phone:	412-503-4623		

URS Corporation
Foster Plaza 4
501 Holiday Drive
Suite 300
Pittsburgh
PA 15220

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
CC6H8H-Day1	3-27-09/1015	WATER	250P	Plastic - 250mL	1	None	WATER 7196A, Dissolved CR6 (Filter in Lab)
		WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, Oil and Grease
		WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, Total Hardness
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 2540D, TSS,TDS,T-Alk,Acidity Spec. Cond
		WATER	1LP	Plastic -1 Liter	1	Sulfuric Acid	WATER, 365.2, Total phosphorus TKN N.Canton
		WATER	1LP	Plastic -1 Liter	1	Sulfuric Acid	WATER, 410.4, COD, Nitrate-Nitrite , NH3
		WATER	250P	Plastic - 250mL	0	None	WATER, 4500-Cl G, Residual Chlorine, Fie
		WATER	250AP	Plastic - 250mL (8oz) Amber	1	Sodium Hydroxide	WATER, 4500-CN E, Free Cyanide N Canton
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 5210 B, BOD N.Canton
		WATER	VV	Glass - 40mL Vial	3	None	WATER, 5310B, Dissolved Organic Carbon (Filter in Lab)
		WATER	VV	Glass - 40mL Vial	3	Sulfuric Acid	WATER, 5310B, TOC
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 5540C MBAS Sulfite (TA Nashville)
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metals (Sp.List)+ Hg Filter in Lab
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals (Sp.List + Hg
		WATER	250P	Plastic - 250mL	1	None	WATER, 7196A, Hexavalent Chromium

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by:	*Date/Time:* 3-27-09/1200	*Received by:* Patrick Farrell	*Date/Time:* 3/27/09 1200
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:*
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:*

Comments:

Attachment C

(1 - 187)

C9C270155

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

COC ID: KOVITCHC16660-1124-3

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Table 2	Quote #: [redacted] Kanga	Client:
Date:	3-27-09	Carrier/Waybill #: Table 2	
Project Manager:	Amanda Bayne		
Phone:	412-503-4623		

URS Corporation
Foster Plaza 4
501 Holiday Drive
Suite 300
Pittsburgh
PA 15220

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
CC6H5H-Dg1	3-27-09/1015	WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8015 DAI TA Buffalo
		WATER	VV	Glass - 40mL Vial	3	None	WATER, 8015 Gylcols TA Buffalo
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (Sp. List)
		WATER	1LAG	Glass - 1 Liter Amber	2	None	WATER, 8270C, BNA Sp. List
		WATER	250P	Plastic - 250mL	1	Sodium Hydroxide	WATER, 9012A, Total Cyanide
		WATER	250P	Plastic - 250mL	1	Zinc Acetate/NaOH	WATER, 9030B/9034, Total Sulfide
		WATER	250AG	Glass - 250mL (8oz) Amber	2	Sulfuric Acid	WATER, 9066, Phenolics
		WATER	250P	Plastic - 250mL	0	None	WATER, Fecal Coliform/ Total Coliform Microbac
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Osmotic Pressure MJ Relder
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Sulfate,Nitrite,Nitrate,Fl,Cl,Br,Turb

10

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by:	*Date/Time:* 3-27-09/1200	*Received by:* Patricia A. Daniels	*Date/Time:* 3/27/09 1200
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:*
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:*

Comments:

(1 - 187)

Attachment C

Cross Creek Unit 6H & 8H

(37-125-22830-00)
(37-125-22793-00)

40° 15' 46.1" N
80° 23' 17.8" W

40° 15' 46.1" N
80° 23' 17.6" W

Cross Creek Township
Washington County

Day 1
First Day of Flowback
27 Mar 09
Sample ID # C9C270155

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation — PAGE 1

Lot #: C9C270155 — Table 2 — **Date Reported:** 4/16/09

Project Number: CC6H8H Day1

PARAMETER		RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: CC6H8H-DAY 1						
Sample #: 001 Date Sampled: 03/27/09 10:15 Date Received: 03/27/09 Matrix: WATER						
Trivalent Chromium Trivalent Chromium						Reviewed
Trivalent Chrom		ND	50.0	ug/L	SW846 6010B	
Trivalent Chrom		ND	50.0	ug/L	SW846 6010B	
Trace Inductively Coupled Plasma (ICP) Metals						Reviewed
Silver		ND	50.0	ug/L	SW846 6010B	
Aluminum		**510 B**	**2000**	**ug/L**	**SW846 6010B**	
Arsenic		**36.9 B**	**100**	**ug/L**	**SW846 6010B**	
Barium		**19200**	**2000**	**ug/L**	**SW846 6010B**	
Beryllium		ND	40.0	ug/L	SW846 6010B	
Boron		**12600**	**2000**	**ug/L**	**SW846 6010B**	
Calcium		**3980000**	**50000**	**ug/L**	**SW846 6010B**	
Cadmium		ND	50.0	ug/L	SW846 6010B	
Cobalt		**10.5 B**	**500**	**ug/L**	**SW846 6010B**	
Chromium		**11.4 B**	**50.0**	**ug/L**	**SW846 6010B**	
Copper		**62.1 B**	**250**	**ug/L**	**SW846 6010B**	
Iron		**12200**	**1000**	**ug/L**	**SW846 6010B**	
Lithium		**33900**	**500**	**ug/L**	**SW846 6010B**	
Magnesium		**394000**	**50000**	**ug/L**	**SW846 6010B**	
Manganese		**2390**	**150**	**ug/L**	**SW846 6010B**	
Molybdenum		**11.5 B**	**400**	**ug/L**	**SW846 6010B**	
Sodium		**14700000**	**500000**	**ug/L**	**SW846 6010B**	
Nickel		**15.3 B**	**400**	**ug/L**	**SW846 6010B**	
Lead		**25.2 B**	**30.0**	**ug/L**	**SW846 6010B**	
Selenium		ND	50.0	ug/L	SW846 6010B	
Strontium		**539000**	**5000**	**ug/L**	**SW846 6010B**	
Zinc		**132 B**	**200**	**ug/L**	**SW846 6010B**	
Silver	Dissolved	ND	50.0	ug/L	SW846 6010B	
Aluminum	**Dissolved**	**282 B**	**2000**	**ug/L**	**SW846 6010B**	
Arsenic	**Dissolved**	**23.0 B**	**100**	**ug/L**	**SW846 6010B**	
Barium	**Dissolved**	**16600**	**2000**	**ug/L**	**SW846 6010B**	

(Continued on next page)

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation — PAGE 2

Lot #: C9C270155 — Table 2 — **Date Reported:** 4/16/09

Project Number: CC6H8H Day1

PARAMETER		RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: CC6H8H-DAY 1						
Sample #: 001 Date Sampled: 03/27/09 10:15 Date Received: 03/27/09 Matrix: WATER						
Beryllium	Dissolved	ND	40.0	ug/L	SW846 6010B	
Boron	**Dissolved**	**12400**	**2000**	**ug/L**	**SW846 6010B**	
Calcium	**Dissolved**	**3850000**	**50000**	**ug/L**	**SW846 6010B**	
Cadmium	Dissolved	ND	50.0	ug/L	SW846 6010B	
Cobalt	**Dissolved**	**9.5 B**	**500**	**ug/L**	**SW846 6010B**	
Chromium	Dissolved	ND	50.0	ug/L	SW846 6010B	
Copper	**Dissolved**	**50.3 B**	**250**	**ug/L**	**SW846 6010B**	
Iron	**Dissolved**	**10600**	**1000**	**ug/L**	**SW846 6010B**	
Lithium	**Dissolved**	**33000**	**500**	**ug/L**	**SW846 6010B**	
Magnesium	**Dissolved**	**386000**	**50000**	**ug/L**	**SW846 6010B**	
Manganese	**Dissolved**	**2300**	**150**	**ug/L**	**SW846 6010B**	
Molybdenum	**Dissolved**	**11.2 B**	**400**	**ug/L**	**SW846 6010B**	
Sodium	**Dissolved**	**14700000**	**500000**	**ug/L**	**SW846 6010B**	
Nickel	**Dissolved**	**9.3 B**	**400**	**ug/L**	**SW846 6010B**	
Lead	**Dissolved**	**19.0 B**	**30.0**	**ug/L**	**SW846 6010B**	
Selenium	Dissolved	ND	50.0	ug/L	SW846 6010B	
Strontium	**Dissolved**	**531000**	**5000**	**ug/L**	**SW846 6010B**	
Zinc	**Dissolved**	**42.0 B**	**200**	**ug/L**	**SW846 6010B**	
Mercury in Liquid Waste (Manual Cold-Vapor)						Reviewed
Mercury		**0.065 B**	**0.20**	**ug/L**	**SW846 7470A**	
Mercury	**Dissolved**	**0.064 B**	**0.20**	**ug/L**	**SW846 7470A**	

B Estimated result. Result is less than RL.

(Continued on next page)

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: C9C270155 | **Range Resources Corporation** | Table 2 | Project Number: CC6H8H Day1 | **Date Reported:** 4/16/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: CC6H8H-DAY 1				
Sample #: 001 Date Sampled: 03/27/09 10:15 Date Received: 03/27/09 Matrix: WATER				
Benzene	**260 E**	**5.0**	**ug/L**	**SW846 8260B**

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: C9C270155

Range Resources Corporation
Table 2
Project Number: CC6H8H Day1

Date Reported: 4/16/09

Client Sample ID: CC6H8H-DAY 1
Sample #: 001 Date Sampled: 03/27/09 10:15 Date Received: 03/27/09 Matrix: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Toluene	270 E	5.0	ug/L	SW846 8260B

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation — PAGE 21

Lot #: C9C270155 — Table 2 — **Date Reported:** 4/16/09

Project Number: CC6H8H Day1

Client Sample ID: CC6H8H-DAY 1

Sample #: 001 Date Sampled: 03/27/09 10:15 Date Received: 03/27/09 Matrix: WATER

J Estimated result. Result is less than RL.

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Inorganic Analysis				Reviewed
Acidity (Titrimetric) 2310B (4a)	ND	5.0	mg/L	SM20 2310B (4a)
Alkalinity, Total	157	5.0	mg/L	SM18 2320 B
Biochemical Oxygen Demand	75.4	2.0	mg/L	SM18 5210 B
Chemical Oxygen Demand	2470	50.0	mg/L	MCAWW 410.4
Specific Conductance	124000	100	umhos/cm	MCAWW 120.1
Bromide	376	5.0	mg/L	MCAWW 300.0A
Chloride	31500	1000	mg/L	MCAWW 300.0A
Nitrite as N	ND G	1.2	mg/L	MCAWW 300.0A
Nitrate as N	1.4	1.2	mg/L	MCAWW 300.0A
Sulfate	102	25.0	mg/L	MCAWW 300.0A
Nitrogen, Ammonia	60.3	5.0	mg/L	MCAWW 350.1

(Continued on next page)

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation — PAGE 22

Lot #: C9C270155 — Table 2 — **Date Reported:** 4/16/09

Project Number: CC6H8H Day1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: CC6H8H-DAY 1					
Sample #: 001 Date Sampled: 03/27/09 10:15 Date Received: 03/27/09 Matrix: WATER					
Nitrate-Nitrite					Reviewed
Nitrate-Nitrite	0.45	0.10	mg/L	MCAWW 353.2	
Phenolics	0.058	0.010	mg/L	SW846 9066	
pH Aqueous	6.4	0.10	No Units	SW846 9040	
Total Dissolved Solids SM 2540 C	61200	200	mg/L	SM18 2540 C	
Total Kjeldahl Nitrogen	77.7	3.0	mg/L	MCAWW 351.3	
Total Suspended Solids SM 2540 D	6.8	4.0	mg/L	SM20 2540D	
Turbidity (Nephelometric)	14.8	2.0	NTU	MCAWW 180.1	

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

B Estimated result. Result is less than RL.

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 1

General Chemistry

Lot-Sample #...: C9C270155-001 **Work Order #...:** K88GC **Matrix.....:** WATER

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hardness, as CaCO3	**12300**	**250**	**mg/L**	**SM20 2340C**	**04/07/09**	**9097181**
	Dilution Factor: 50		Analysis Time..: 00:00		MS Run #.....: 9097117	
	MDL.....: 76.9					
Hexavalent Chromium	**0.014**	**0.010**	**mg/L**	**SW846 7196A**	**03/28/09**	**9087016**
	Dilution Factor: 1		Analysis Time..: 08:45		MS Run #.....:	
	MDL.....: 0.0027					
Nitrate-Nitrite	**0.45 J**	**0.10**	**mg/L**	**MCAWW 353.2**	**04/08-04/09/09**	**9098156**
	Dilution Factor: 1		Analysis Time..: 12:34		MS Run #.....: 9098095	
	MDL.....: 0.010					
Oil & Grease (HEM)	ND	4.9	mg/L	CFR136A 1664A HEM	04/13/09	9103106
	Dilution Factor: 0.98		Analysis Time..: 09:35		MS Run #.....:	
	MDL.....: 0.48					
Specific Conductance	**124000 J**	**100**	**umhos/cm**	**MCAWW 120.1**	**03/31/09**	**9090047**
	Dilution Factor: 100		Analysis Time..: 00:00		MS Run #.....: 9090029	
	MDL.....:					
Sulfate	**102**	**25.0**	**mg/L**	**MCAWW 300.0A**	**03/27-03/28/09**	**9086253**
	Dilution Factor: 25		Analysis Time..: 00:00		MS Run #.....:	
	MDL.....: 0.79					

(Continued on next page)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	TestAmerica Pittsburgh	Work Order:	NSC2612
	301 Alpha, RIDC Park	Project Name:	TA-Pennsylvania Sites
	Pittsburgh, PA 15238	Project Number:	C9C270155
Attn	Chris Kovitch	Received:	03/28/09 08:45

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSC2612-01 (CC6H8H-Day 1 - Water) Sampled: 03/27/09 10:15								
General Chemistry Parameters								
MBAS (mol.wt 320)	0.0641	L1, M2	mg/L	0.0500	1	03/29/09 08:56	SM5540 C	9034354
Sulfite	ND	HTI	mg/L	5.00	1	04/07/09 14:00	SM4500-SO3 B	9040909

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
Pittsburgh, PA 15238

SDG Number: C9C270155

Project: Range Resources Corporation
Project Number: C9C270155

Received: 03/28/09-03/31/(
Reported: 04/23/09 14:18

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSC0987-01 (CC6H8H-DAY 1 - Water)					**Sampled: 03/27/09**			**Recvd: 03/28/09 09:10**		
Alcohols by EPA Method 8015 modified										
Non-Halogenated Volatile Organics										
Ethylene Glycol	31	B	10	NA	mg/L	1.00	04/01/09 12:13	tch	9D01008	8015
Surr: 1,4-Butanediol (66-130%)	*101 %*						04/01/09 12:13	tch	9D01008	8015

Range Resources Corporation

Client Sample ID: CC6H8H-DAY0 DUP

Radiochemistry

Lab Sample ID: C9C240291-001X
Work Order: K83PA
Matrix: WATER

Date Collected: 03/24/09 1430
Date Received: 03/24/09 1650

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**	**Batch # 9091406**		**Yld %**
Lead 210	80	U	110		170	04/01/09	04/22/09
Lead 212	-4	U	17		19	04/01/09	04/22/09
Lead 214	-3	U	15		22	04/01/09	04/22/09
Radium (226)	-2	U	17		26	04/01/09	04/22/09
Radium 228	10	U	20	50	36	04/01/09	04/22/09
Thorium 227	-9	U	32		54	04/01/09	04/22/09
Thorium 234	-30	U	130		180	04/01/09	04/22/09
Uranium 235	9	U	30		52	04/01/09	04/22/09
Uranium 238	-30	U	130		180	04/01/09	04/22/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Yld results are greater than the MDC.

U Result is less than the sample detection limit.

Range Resources Corporation

Client Sample ID: CC6H8H-DAY0

Radiochemistry

Lab Sample ID: C9C240291-001
Work Order: K83PA
Matrix: WATER

Date Collected: 03/24/09 1430
Date Received: 03/24/09 1650

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	Batch # 9091406		Yld %
Lead 210	140	U	120		210	04/01/09	04/22/09
Lead 212	10	U	11		18	04/01/09	04/22/09
Lead 214	6	U	10		17	04/01/09	04/22/09
Radium (226)	7	U	12		20	04/01/09	04/22/09
Radium 228	6	U	23	50	42	04/01/09	04/22/09
Thorium 227	3	U	54		93	04/01/09	04/22/09
Thorium 234	170	U	130		180	04/01/09	04/22/09
Uranium 235	18	U	28		48	04/01/09	04/22/09
Uranium 238	170	U	130		180	04/01/09	04/22/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Old results are greater than the MDC.

U Result is less than the sample detection limit.

Range Resources Corporation

Client Sample ID: SUPPLY WATER-CC6H8H

Radiochemistry

Lab Sample ID: C9C240291-002
Work Order: K83PC
Matrix: WATER

Date Collected: 03/24/09 1230
Date Received: 03/24/09 1650

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L		Batch # 9091406		Yld %
Lead 210	-9	U	76		140	04/01/09	04/22/09
Lead 212	12.9		9.3		13	04/01/09	04/22/09
Lead 214	13.3	U	9.4		14	04/01/09	04/22/09
Radium (226)	0.8	U	11		22	04/01/09	04/22/09
Radium 228	-1	U	21	50	38	04/01/09	04/22/09
Thorium 227	-14	U	31		52	04/01/09	04/22/09
Thorium 234	-60	U	140		150	04/01/09	04/22/09
Uranium 235	-20	U	910		50	04/01/09	04/22/09
Uranium 238	-60	U	140		150	04/01/09	04/22/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Yld results are greater than the MDC.

U Result is less than the sample detection limit.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. CC6H8H-Day 5

Table 2

Lot #: C9D010248

Tony Gaudlip

Range Resources Corporation
380 Southpointe Blvd
Suite 300
Canonsburg, PA 15317

TESTAMERICA LABORATORIES, INC.

Christina M. Kovitch
Project Manager

April 24, 2009

NELAC REPORTING:

At the time of analysis the laboratory was in compliance with the current NELAC standards and held accreditation for all analyses performed unless noted by a qualifier. The labs accreditation numbers are listed below. The format and contents of the report meets all applicable NELAC standards except as noted in the narrative and shall not be reproduced except in full, without the written approval of the laboratory. The table below presents a summary of the certifications held by TestAmerica Pittsburgh. Our primary accreditation authority for the Non-potable water and Solid & Hazardous waste programs is Pennsylvania DEP. A more detailed parameter list is available upon request. Please ask your project manager for this information when required.

Certifying State/Program	Certificate #	Program Types	TestAmerica
NFESC	NA	NAVY	X
US Dept of Agriculture	(#P330-07-00101)	Foreign Soil Import Permit	X
Arkansas	(#88-0690)	WW	X
		HW	X
California – NELAC	04224CA	WW	X
		HW	X
Connecticut	(#PH-0688)	WW	X
		HW	X
Florida – NELAC	(#E871008-04)	WW	X
		HW	X
Illinois – NELAC	(#002064)	WW	X
		HW	X
Kansas – NELAC	(#E-10350)	WW	X
		HW	X
Louisiana – NELAC	(#04041)	WW	X
		HW	X
New Hampshire – NELAC	(#203008)	WW	X
		--	--
New Jersey – NELAC	(PA-005)	WW	X
		HW	X
New York – NELAC	(#11182)	WW	X
		HW	X
North Carolina	(#434)	WW	X
		HW	X
Pennsylvania - NELAC	(#02-00416)	WW	X
		HW	X
South Carolina	(#89014002)	WW	X
		HW	X
Utah – NELAC	(STLP)	WW	X
		HW	X
West Virginia	(#142)	WW	X
		HW	X
Wisconsin	998027800	WW	X
		HW	X

The codes utilized for program types are described below:

HW Hazardous Waste certification
WW Non-potable Water and/or Wastewater certification
X Laboratory has some form of certification under the specific program. Many states certify laboratories for specific parameters or tests within a category. The information in the table indicates the lab is certified in a general category of testing. Please contact the laboratory if parameter specific certification information is required.

Updated: 2/5/2009 C:\Documents and Settings\derubeisn\My Documents\NELAC NARRATIVE Pttsburgh.doc

C9D010248

TestAmerica Chain of Custody Record

THE LEADER IN ENVIRONMENTAL TESTING

COC ID: KOVITCHC16660-1124-3

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Table 2	Quote #:	81989	Range Client:	URS Corporation
Date:	4-1-09	Carrier/Waybill #:			Foster Plaza 4
Project Manager:	Amanda Bayne		Table 2		501 Holiday Drive
Phone:	412-503-4623				Suite 300
					Pittsburgh
					PA 15220

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
CC6H8H-Dg5	4-1-09/1415	WATER	250P	Plastic - 250mL	1	None	WATER 7196A, Dissolved CR6 (Filter in Lab)
		WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, Oil and Grease
		WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, Total Hardness
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 2540D, TSS,TDS,T-Alk,Acidity Spec. Cond
		WATER	1LP	Plastic -1 Liter	1	Sulfuric Acid	WATER, 365.2, Total phosphorus TKN N.Canton
		WATER	1LP	Plastic -1 Liter	1	Sulfuric Acid	WATER, 410.4, COD, Nitrate-Nitrite , NH3
		WATER	250P	Plastic - 250mL	0	None	WATER, 4500-Cl G, Residual Chlorine, Fie
		WATER	250AP	Plastic - 250mL (8oz) Amber	1	Sodium Hydroxide	WATER, 4500-CN E, Free Cyanide N.Canton
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 5210 B, BOD N.Canton
		WATER	VV	Glass - 40mL Vial	3	None	WATER, 5310B, Dissolved Organic Carbon (Filter in Lab)
		WATER	VV	Glass - 40mL Vial	3	Sulfuric Acid	WATER, 5310B, TOC
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 5540C MBAS Sulfite (TA Nashville)
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metals (Sp.List)+ Hg Filter in Lab
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals (Sp.List + Hg
		WATER	250P	Plastic - 250mL	1	None	WATER, 7196A, Hexavalent Chromium

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify)

Relinquished by: URS	*Date/Time:* 4-1-09/1500	*Received by:*	*Date/Time* 4/1/09 1615 ~~1605~~
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time* PMP 4/1/09
Relinquished by:	*Date/Time.*	*Received by:*	*Date/Time*

Comments:

C9D010248

TestAmerica Chain of Custody Record

THE LEADER IN ENVIRONMENTAL TESTING

COC ID: KOVITCHC16660-1124-3

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Table 2	Quote #: 81989	Client:	URS Corporation
Date:	4-1-09	Carrier/Waybill #: Table 2		Foster Plaza 4
Project Manager:	Amanda Bayne			501 Holiday Drive
Phone:	412-503-4623			Suite 300
				Pittsburgh
				PA 15220

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
CC6H9H-Dg5	4-1-09/14K	WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8015 DAI TA Buffalo
		WATER	VV	Glass - 40mL Vial	3	None	WATER, 8015 Gylcols TA Buffalo
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (Sp. List)
		WATER	1LAG	Glass - 1 Liter Amber	2	None	WATER, 8270C, BNA Sp. List
		WATER	250P	Plastic - 250mL	1	Sodium Hydroxide	WATER, 9012A, Total Cyanide
		WATER	250P	Plastic - 250mL	1	Zinc Acetate/NaOH	WATER, 9030B/9034, Total Sulfide
		WATER	250AG	Glass - 250mL (8oz) Amber	2	Sulfuric Acid	WATER, 9066, Phenolics
		WATER	250P	Plastic - 250mL	0	None	WATER, Fecal Coliform/ Total Coliform Microbac
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Osmotic Pressure MJ Reider
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Sulfate,Nitrite,Nitrate,Fl,Cl,Br,Turb

10

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by: Courtesy of URS	*Date/Time:* 4-1-09/19a	*Received by:* Richard L Daniel	*Date/Time:* 4/1/09 1615
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:*
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:*

Comments:

Cross Creek Unit 6H & 8H

(37-125-22830-00)
(37-125-22793-00)

40° 15' 46.1" N
80° 23' 17.8" W

40° 15' 46.1" N
80° 23' 17.6" W

Cross Creek Township
Washington County

Day 5
Fifth Day of Flowback
1 Apr 09
Sample ID # C9D010248

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation — PAGE 1

Lot #: C9D010248 — Table 2 — **Date Reported:** 4/23/09

Project Number: CC6H8H-Day 5

Client Sample ID: CC6H8H-DAY 5

Sample #: 001 Date Sampled: 04/01/09 14:15 Date Received: 04/01/09 Matrix: WATER

PARAMETER		RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Trivalent Chromium Trivalent Chromium						Reviewed
Trace Inductively Coupled Plasma (ICP) Metals						Reviewed
Silver		ND	50.0	ug/L	SW846 6010B	
Aluminum		950 B	2000	ug/L	SW846 6010B	
Arsenic		78.4 B	100	ug/L	SW846 6010B	
Barium		77100	2000	ug/L	SW846 6010B	
Beryllium		ND	40.0	ug/L	SW846 6010B	
Boron		12200	2000	ug/L	SW846 6010B	
Calcium		8880000	100000	ug/L	SW846 6010B	
Cadmium		2.2 B	50.0	ug/L	SW846 6010B	
Cobalt		ND	1000	ug/L	SW846 6010B	
Chromium		39.3 B	50.0	ug/L	SW846 6010B	
Copper		116 B	250	ug/L	SW846 6010B	
Iron		49600	1000	ug/L	SW846 6010B	
Lithium		55900	500	ug/L	SW846 6010B	
Magnesium		881000	50000	ug/L	SW846 6010B	
Manganese		4680	150	ug/L	SW846 6010B	
Molybdenum		30.8 B	400	ug/L	SW846 6010B	
Sodium		23700000	500000	ug/L	SW846 6010B	
Nickel		26.4 B	800	ug/L	SW846 6010B	
Lead		61.0	60.0	ug/L	SW846 6010B	
Selenium		ND	50.0	ug/L	SW846 6010B	
Strontium		1350000	25000	ug/L	SW846 6010B	
Zinc		106 B	200	ug/L	SW846 6010B	
Silver	Dissolved	ND	50.0	ug/L	SW846 6010B	
Aluminum	Dissolved	363 B	2000	ug/L	SW846 6010B	
Arsenic	Dissolved	91.2 B	100	ug/L	SW846 6010B	
Barium	Dissolved	55200	2000	ug/L	SW846 6010B	

(Continued on next page)

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation

Lot #: C9D010248 — Table 2 — **Date Reported:** 4/23/09

Project Number: CC6H8H-Day 5

Client Sample ID: CC6H8H-DAY 5

Sample #: 001 Date Sampled: 04/01/09 14:15 Date Received: 04/01/09 Matrix: WATER

PARAMETER		RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Beryllium	Dissolved	ND	40.0	ug/L	SW846 6010B	
Boron	**Dissolved**	**16900**	**2000**	**ug/L**	**SW846 6010B**	
Calcium	**Dissolved**	**12000000**	**100000**	**ug/L**	**SW846 6010B**	
Cadmium	**Dissolved**	**3.0 B**	**50.0**	**ug/L**	**SW846 6010B**	
Cobalt	Dissolved	ND	1000	ug/L	SW846 6010B	
Chromium	**Dissolved**	**12.1 B**	**50.0**	**ug/L**	**SW846 6010B**	
Copper	Dissolved	ND	250	ug/L	SW846 6010B	
Iron	**Dissolved**	**45700**	**1000**	**ug/L**	**SW846 6010B**	
Potassium	**Dissolved**	**336000**	**50000**	**ug/L**	**SW846 6010B**	
Lithium	**Dissolved**	**78800**	**500**	**ug/L**	**SW846 6010B**	
Magnesium	**Dissolved**	**1180000**	**50000**	**ug/L**	**SW846 6010B**	
Manganese	**Dissolved**	**6120**	**150**	**ug/L**	**SW846 6010B**	
Molybdenum	**Dissolved**	**20.2 B**	**400**	**ug/L**	**SW846 6010B**	
Sodium	**Dissolved**	**31600000**	**500000**	**ug/L**	**SW846 6010B**	
Nickel	Dissolved	ND	800	ug/L	SW846 6010B	
Lead	**Dissolved**	**63.8**	**60.0**	**ug/L**	**SW846 6010B**	
Selenium	Dissolved	ND	50.0	ug/L	SW846 6010B	
Strontium	**Dissolved**	**1880000**	**25000**	**ug/L**	**SW846 6010B**	
Zinc	**Dissolved**	**84.6 B**	**200**	**ug/L**	**SW846 6010B**	
Mercury in Liquid Waste (Manual Cold-Vapor)						Reviewed
Mercury		ND	0.20	ug/L	SW846 7470A	
Mercury	Dissolved	ND	0.20	ug/L	SW846 7470A	

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation

Lot #: C9D010248 Table 2 **Date Reported:** 4/23/09

Project Number: CC6H8H-Day 5

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: CC6H8H-DAY 5				
Sample #: 001 Date Sampled: 04/01/09 14:15 Date Received: 04/01/09 Matrix: WATER				
Benzene	**880**	**50**	**ug/L**	**SW846 8260B**

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation

Lot #: C9D010248 — Table 2 — **Date Reported:** 4/23/09

Project Number: CC6H8H-Day 5

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: CC6H8H-DAY 5				
Sample #: 001 Date Sampled: 04/01/09 14:15 Date Received: 04/01/09 Matrix: WATER				
Toluene	**920**	**50**	**ug/L**	**SW846 8260B**

(Continued on next page)

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation
Table 2
Project Number: CC6H8H-Day 5

Lot #: C9D010248 **Date Reported:** 4/23/09

Client Sample ID: CC6H8H-DAY 5
Sample #: 001 Date Sampled: 04/01/09 14:15 Date Received: 04/01/09 Matrix: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Inorganic Analysis				Reviewed
Acidity (Titrimetric) 2310B (4a)	ND	5.0	mg/L	SM20 2310B (4a)
Alkalinity, Total	54.0	5.0	mg/L	SM18 2320 B
Biochemical Oxygen Demand	64.8	2.0	mg/L	SM18 5210 B
Chemical Oxygen Demand	5170	200	mg/L	MCAWW 410.4
Specific Conductance	233000	200	umhos/cm	MCAWW 120.1
HARDNESS, TOTAL	34000	2500	mg/L	SM20 2340C HEM
Bromide	826	20.0	mg/L	MCAWW 300.0A
Chloride	72000	1000	mg/L	MCAWW 300.0A
Sulfate	60.7 B	100	mg/L	MCAWW 300.0A
Nitrogen, Ammonia	115	5.0	mg/L	MCAWW 350.1
Nitrate-Nitrite	0.34	0.10	mg/L	MCAWW 353.2
Phenolics	0.016	0.010	mg/L	SW846 9066
pH Aqueous	6.4	0.10	No Units	SW846 9040
Total Dissolved Solids SM 2540 C	116000	200	mg/L	SM18 2540 C
Total Kjeldahl Nitrogen	55.9	3.0	mg/L	MCAWW 351.3
Total Suspended Solids SM 2540 D	204	4.0	mg/L	SM20 2540D

(Continued on next page)

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 5

General Chemistry

Lot-Sample #...: C9D010248-001 Work Order #...: K9FH4 Matrix.....: WATER

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hardness, as CaCO3	**34000**	**2500**	**mg/L**	**SM20 2340C**	**04/07/09**	**9097181**
	Dilution Factor: 500		Analysis Time..: 00:00		MS Run #.....: 9097117	
	MDL.....: 769					
Nitrate-Nitrite	**0.34 J**	**0.10**	**mg/L**	**MCAWW 353.2**	**04/08-04/09/09**	**9098156**
	Dilution Factor: 1		Analysis Time..: 12:46		MS Run #.....: 9098095	
	MDL.....: 0.010					
Oil & Grease (HEM)	**20.4**	**4.9**	**mg/L**	**CFR136A 1664A HEM**	**04/20-04/21/09**	**9110560**
	Dilution Factor: 0.98		Analysis Time..: 11:30		MS Run #.....: 9110307	
	MDL.....: 0.48					
Specific Conductance	**233000 J**	**200**	**umhos/cm**	**MCAWW 120.1**	**04/07/09**	**9097046**
	Dilution Factor: 200		Analysis Time..: 00:00		MS Run #.....: 9097025	
	MDL.....					
Sulfate	**60.7 B**	**100**	**mg/L**	**MCAWW 300.0A**	**04/02-04/03/09**	**9092122**
	Dilution Factor: 100		Analysis Time..: 00:00		MS Run #.....: 9092058	
	MDL.....: 3.1					

(Continued on next page)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	TestAmerica Pittsburgh	Work Order:	NSD0115
	301 Alpha, RIDC Park	Project Name:	TA-Pennsylvania Sites
	Pittsburgh, PA 15238	Project Number:	C9D010248
Attn	Chris Kovitch	Received:	04/02/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSD0115-01 (CC6H8H-Day 5 - Water) Sampled: 04/01/09 14:15								
General Chemistry Parameters								
MBAS (mol.wt 320)	ND		mg/L	0.0500	1	04/03/09 20:29	SM5540 C	9040387

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Pittsburgh
)01 Alpha Drive; RIDC Park
Pittsburgh, PA 15238

SDG Number: C9D010248

Project: Range Resources Corporation
Project Number: C9D010248

Received: 04/02/09
Reported: 04/24/09 13:44

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSD0094-01 (CC6H8H-DAY 5 - Water)					**Sampled: 04/01/09**			**Recvd: 04/02/09 08:50**		
Non-Halogenated Volatile Organics										
Ethylene Glycol	ND	D02	100	NA	mg/L	10.0	04/09/09 11:52	tch	9D09050	8015
Surr: 1,4-Butanediol (66-130%)	*	*D02,Z3*					04/09/09 11:52	tch	9D09050	8015

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. CC6H8H-Day14

Table 1

Lot #: C9D090299

Tony Gaudlip

Range Resources Corporation
380 Southpointe Blvd
Suite 300
Canonsburg, PA 15317

TESTAMERICA LABORATORIES, INC.

Christina M. Kovitch
Project Manager

April 29, 2009

301 Alpha Drive Pittsburgh, PA 15238 **tel** 412.963.7058 **fax** 412.963.2468 **www.testamericainc.com**

NELAC REPORTING:

At the time of analysis the laboratory was in compliance with the current NELAC standards and held accreditation for all analyses performed unless noted by a qualifier. The labs accreditation numbers are listed below. The format and contents of the report meets all applicable NELAC standards except as noted in the narrative and shall not be reproduced except in full, without the written approval of the laboratory. The table below presents a summary of the certifications held by TestAmerica Pittsburgh. Our primary accreditation authority for the Non-potable water and Solid & Hazardous waste programs is Pennsylvania DEP. A more detailed parameter list is available upon request. Please ask your project manager for this information when required.

Certifying State/Program	Certificate #	Program Types	TestAmerica
NFESC	NA	NAVY	X
US Dept of Agriculture	(#P330-07-00101)	Foreign Soil Import Permit	X
Arkansas	(#88-0690)	WW	X
		HW	X
California – NELAC	04224CA	WW	X
		HW	X
Connecticut	(#PH-0688)	WW	X
		HW	X
Florida – NELAC	(#E871008-04)	WW	X
		HW	X
Illinois – NELAC	(#002064)	WW	X
		HW	X
Kansas – NELAC	(#E-10350)	WW	X
		HW	X
Louisiana – NELAC	(#04041)	WW	X
		HW	X
New Hampshire – NELAC	(#203008)	WW	X
		--	--
New Jersey – NELAC	(PA-005)	WW	X
		HW	X
New York – NELAC	(#11182)	WW	X
		HW	X
North Carolina	(#434)	WW	X
		HW	X
Pennsylvania - NELAC	(#02-00416)	WW	X
		HW	X
South Carolina	(#89014002)	WW	X
		HW	X
Utah – NELAC	(STLP)	WW	X
		HW	X
West Virginia	(#142)	WW	X
		HW	X
Wisconsin	998027800	WW	X
		HW	X

The codes utilized for program types are described below:

HW Hazardous Waste certification
WW Non-potable Water and/or Wastewater certification
X Laboratory has some form of certification under the specific program. Many states certify laboratories for specific parameters or tests within a category. The information in the table indicates the lab is certified in a general category of testing. Please contact the laboratory if parameter specific certification information is required.

Updated: 2/5/2009 C:\Documents and Settings\derubeisn\My Documents\NELAC NARRATIVE Pttsburgh.doc

C9D090299

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

COC ID: KOVITCHC16972-1141-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Table 1	Quote #: [redacted]	Client: URS Corporation
Date:	4-9-09	Carrier/Waybill #: Range	Foster Plaza 4
Project Manager:	Amanda Baynes		501 Holiday Drive
Phone:	412-849-5403		Suite 300
			Pittsburgh
			PA 15220

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
CC6H8H-D-8-14	4-9-09/1445	WATER	1LP	Plastic -1 Liter	1	None	WATER, MBAS,Sulfite (TA Nashville)
		WATER	1LP	Plastic -1 Liter	1	None	WATER, TDS, TSS, T-Alk-t Br,Cl,Fl
		WATER	250P	Plastic - 250mL	1	Sulfuric Acid	WATER, TKN, T-Phos N.Canton
		WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, Oil and Grease
		WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, Total Hardness
		WATER	250P	Plastic - 250mL	1	None	WATER, 300.0A, Nitrate ,Nitrite, Sulfate,pH
		WATER	250AP	Plastic - 250mL (8oz) Amber	1	Sodium Hydroxide	WATER, 4500-CN E, Free Cyanide N.Canton
		WATER	1lp	Plastic -1 Liter	1	None	WATER, 5210 B, BOD N.Canton
		WATER	VV	Glass - 40mL Vial	3	None	WATER, 5310B, Dissolved Organic Carbon (Filter at Lab)
		WATER	VV	Glass - 40mL Vial	3	Sulfuric Acid	WATER, 5310B, TOC
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metals (Sp.List) (Filter in Lab)
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals (Sp.List)
		WATER	250P	Plastic - 250mL	1	None	WATER, 7196A, Diss Hexavalent Cr (needs filted in lab)
		WATER	250P	Plastic - 250mL	1	None	WATER, 7196A, Total Hexavalent Chromium
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8015 DAI TA Buffalo

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by:	Date/Time: 4-9-09 1520	Received by: Tim Vicinelli	Date/Time: 4/9/09 1650
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

Comments:

(1 1 206)

Printed On: 4/1/2009 07:17 PM

(NOTE: this ORIGINAL Chain of Custody MUST accompany the samples from collection to receipt at the laboratory)

Attachment C

C9D090299

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

COC ID: KOVITCHC16972-1141-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Table 1	Quote #: [redacted]	Client: URS Corporation
Date:	4-7-09	Carrier/Waybill #: Kayl	Foster Plaza 4
Project Manager:	Amanda Baynes		501 Holiday Drive
Phone:	412-849-5403		Suite 300
			Pittsburgh
			PA 15220

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
QC645H-3&14	4-6-09/1445	WATER	VV	Glass - 40mL Vial	3	None	WATER, 8015 Glycols TA Buffalo
		WATER	1LAG	Glass - 1 Liter Amber	2	None	WATER, 8081A, Pesticides
		WATER	1LAG	Glass - 1 Liter Amber	2	None	WATER, 8082, PCBs (8082)
		WATER	1LAG	Glass - 1 Liter Amber	2	None	WATER, 8141A, Organophos
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (Sp. List)
		WATER	1LAG	Glass - 1 Liter Amber	2	None	WATER, 8270C, BNA Sp. List
		WATER	1GP	Plastic - 1 Gallon	1	Nitric Acid	WATER, 901.1 MOD, Gamma Cs-137 & Hits by
		WATER	250P	Plastic - 250mL	1	Sodium Hydroxide	WATER, 9012A, Total Cyanide
		WATER	250P	Plastic - 250mL	1	Zinc Acetate/NaOH	WATER, 9030B/9034, Total Sulfide
		WATER	4oz	Glass - 4oz (125mL)	2	Sulfuric Acid	WATER, 9066, Phenolics
		WATER	250P	Plastic - 250mL	1	Sulfuric Acid	WATER, Ammonia Nitrogen, Nitrate-Nitrite,COD
		WATER	VVAG	Amber Glass - 40 mL Vial	3	None	WATER, Fatty Acid TA Buffalo
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Osmotic Pressure MJ Reider
		WATER	2oz	Plastic - 2oz	1	None	WATER, Total Coliform Microbac
		WATER	500P	Plastic - 500mL (16oz)	1	None	WATER, TVA TA Watertown

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by: [signature] IMS	*Date/Time:* 4-7-09/1530	*Received by:* [signature]	*Date/Time:* 4/9/09 1650
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:*
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:*

Comments:

10

(T - 206)

Attachment C

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C9D090299 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Acidity		Work Order #: LAEPE1AA		MB Lot-Sample #:	C9D210000-061	
	ND	5.0	mg/L	SM20 2310B (4a)	04/21/09	9111061
		Dilution Factor: 1				
		Analysis Time..: 00:00				
Ammonia Nitrogen		Work Order #: K97851AA		MB Lot-Sample #:	C9D160000-409	
	0.030 B	**0.10**	**mg/L**	**MCAWW 350.1**	**04/16-04/17/09**	**9106409**
		Dilution Factor: 1				
		Analysis Time..: 00:00				
Biochemical Oxygen Demand (BOD)		Work Order #: K94L11AA		MB Lot-Sample #:	A9D100000-381	
	ND	2.0	mg/L	SM18 5210 B	04/10-04/15/09	9100381
		Dilution Factor: 1				
		Analysis Time..: 00:00				
Bromide		Work Order #: K90DE1AA		MB Lot-Sample #:	C9D100000-362	
	ND	0.20	mg/L	MCAWW 300.0A	04/10/09	9100362
		Dilution Factor: 1				
		Analysis Time..: 00:00				
Chemical Oxygen Demand (COD)		Work Order #: LAKKR1AA		MB Lot-Sample #:	C9D230000-068	
	ND	10.0	mg/L	MCAWW 410.4	04/23/09	9113068
		Dilution Factor: 1				
		Analysis Time..: 15:51				
Chloride		Work Order #: LAF7K1AA		MB Lot-Sample #:	C9D210000-353	
	ND	1.0	mg/L	MCAWW 300.0A	04/21/09	9111353
		Dilution Factor: 1				
		Analysis Time..: 00:00				

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C9D090299 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hardness, as CaCO3		Work Order #: LAD1N1AA		MB Lot-Sample #: C9D200000-319		
	ND	5.0	mg/L	SM20 2340C	04/20/09	9110319
		Dilution Factor: 1				
		Analysis Time..: 00:00				
Nitrate-Nitrite		Work Order #: LARD41AA		MB Lot-Sample #: C9D250000-018		
	0.024 B	**0.10**	**mg/L**	**MCAWW 353.2**	**04/25/09**	**9115018**
		Dilution Factor: 1				
		Analysis Time..: 12:49				
	ND					
Oil & Grease (HEM)		Work Order #: LAWJF1AA		MB Lot-Sample #: C9D280000-174		
	ND	5.0	mg/L	CFR136A 1664A HEM	04/27-04/28/09	9118174
		Dilution Factor: 1				
		Analysis Time..: 12:00				
Specific Conductance		Work Order #: K9WR91AA		MB Lot-Sample #: C9D100000-016		
	0.45 B	**1.0**	**umhos/cm**	**MCAWW 120.1**	**04/10/09**	**9100016**
		Dilution Factor: 1				
		Analysis Time..: 00:00				
Sulfate		Work Order #: K90C01AA		MB Lot-Sample #: C9D100000-358		
	0.14 B	**1.0**	**mg/L**	**MCAWW 300.0A**	**04/10/09**	**9100358**
		Dilution Factor: 1				
		Analysis Time..: 00:00				

(Continued on next page)

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C9D090299 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Dissolved Hexavalent Chromium		Work Order #: K9WX91AA		MB Lot-Sample #:	C9D100000-115	
	ND	0.010	mg/L	SW846 7196A	04/10/09	9100115
		Dilution Factor: 1				
		Analysis Time..: 11:03				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
Pittsburgh, PA 15238

SDG Number: C9D090299

Project: Range Resources Corporation
Project Number: C9D090299

Received: 04/10/09
Reported: 04/27/09 15:55

Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: RSD0478-01 (CC6H8H-DAY 14 - Water)					**Sampled: 04/09/09**			**Recvd: 04/10/09 09:10**		
Non-Halogenated Volatile Organics										
Ethylene Glycol	ND	D02, Z3	100	NA	mg/L	10.0	04/15/09 11:56	tch	9D15033	8015
Surr: 1,4-Butanediol (66-130%)	*	*D02, Z3*					04/15/09 11:56	tch	9D15033	8015

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	TestAmerica Pittsburgh	Work Order:	NSD0891
	301 Alpha, RIDC Park	Project Name:	TA-Pennsylvania Sites
	Pittsburgh, PA 15238	Project Number:	C9D090299
Attn	Chris Kovitch	Received:	04/10/09 08:10

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSD0891-01 (CC6H8H-DAY 14 - Water) Sampled: 04/09/09 14:45								
General Chemistry Parameters								
MBAS (mol.wt 320)	0.465	H2	mg/L	0.0500	1	04/15/09 09:00	SM5540 C	9042254

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 14

TOTAL Metals

Lot-Sample #...: C9D090299-001 **Matrix.....:** WATER
Date Sampled...: 04/09/09 **Date Received..:** 04/09/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9103098						
Silver	ND	50.0	ug/L	SW846 6010B	04/13-04/21/09	K9WFK1CG
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 5.4	
Aluminum	**1450 B**	**2000**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1CH**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 162	
Arsenic	**82.8 B**	**100**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1CJ**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 19.5	
Barium	**83100**	**2000**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1CK**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 2.6	
Beryllium	ND	40.0	ug/L	SW846 6010B	04/13-04/21/09	K9WFK1CL
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 1.8	
Boron	**14700 J**	**2000**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1CM**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 12.7	
Calcium	**14000000**	**250000**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1CN**
		Dilution Factor: 50		Analysis Time..: 13:47	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 884	
Cadmium	**4.7 B**	**50.0**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1CP**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 2.1	
Cobalt	ND	2500	ug/L	SW846 6010B	04/13-04/21/09	K9WFK1CQ
		Dilution Factor: 50		Analysis Time..: 13:47	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 22.5	

(Continued on next page)

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 14

TOTAL Metals

Lot-Sample #...: C9D090299-001 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Chromium	**32.8 B**	**50.0**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1CR**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 10.7	
Copper	**73.3 B**	**250**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1CT**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 45.7	
Iron	**75200**	**1000**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1CU**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 84.0	
Lithium	**86000**	**500**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1CW**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 15.0	
Magnesium	**1380000**	**50000**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1CX**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 218	
Manganese	**7320**	**150**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1C0**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 5.7	
Molybdenum	ND	400	ug/L	SW846 6010B	04/13-04/21/09	K9WFK1C1
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 8.5	
Sodium	**34000000**	**500000**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1C2**
		Dilution Factor: 100		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 14500	
Nickel	ND	2000	ug/L	SW846 6010B	04/13-04/21/09	K9WFK1C3
		Dilution Factor: 50		Analysis Time..: 13:47	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 39.0	

(Continued on next page)

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 14

TOTAL Metals

Lot-Sample #...: C9D090299-001 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	**106 B**	**150**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1C4**
		Dilution Factor: 50		Analysis Time..: 13:47	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 85.5	
Selenium	ND	50.0	ug/L	SW846 6010B	04/13-04/21/09	K9WFK1C6
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 29.0	
Strontium	**2100000**	**25000**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1C8**
		Dilution Factor: 500		Analysis Time..: 13:37	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 60.0	
Zinc	**123 B**	**200**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K9WFK1DC**
		Dilution Factor: 10		Analysis Time..: 13:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 30.6	
Prep Batch #...: 9103184						
Mercury	ND	0.20	ug/L	SW846 7470A	04/13/09	K9WFK1EC
		Dilution Factor: 1		Analysis Time..: 14:16	Analyst ID.....: 403938	
		Instrument ID..: HGHYDRA		MS Run #.....: 9103107	MDL.....: 0.038	

(Continued on next page)

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 14

DISSOLVED Metals

Lot-Sample #...: C9D090299-001 **Matrix.....:** WATER
Date Sampled...: 04/09/09 **Date Received..:** 04/09/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9103093						
Silver	**5.6 B**	**50.0**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1DE**
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 5.4	
Aluminum	**395 B**	**2000**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1DF**
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 162	
Arsenic	**63.2 B**	**100**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1DG**
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 19.5	
Barium	**75700**	**2000**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1DH**
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 2.6	
Beryllium	ND	40.0	ug/L	SW846 6010B	04/13-04/22/09	K9WFK1DJ
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 1.8	
Boron	**15400 J**	**2000**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1DK**
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 12.7	
Calcium	**14300000**	**250000**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1DL**
		Dilution Factor: 50		Analysis Time..: 16:33	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 884	
Cadmium	**3.8 B**	**50.0**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1DM**
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 2.1	
Cobalt	ND	2500	ug/L	SW846 6010B	04/13-04/22/09	K9WFK1DN
		Dilution Factor: 50		Analysis Time..: 16:33	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 22.5	

(Continued on next page)

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 14

DISSOLVED Metals

Lot-Sample #...: C9D090299-001 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Chromium	**11.6 B**	**50.0**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1DP**
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 10.7	
Copper	ND	250	ug/L	SW846 6010B	04/13-04/22/09	K9WFK1DQ
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 45.7	
Iron	**47300**	**1000**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1DR**
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 84.0	
Lithium	**94500**	**500**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1DU**
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 15.0	
Magnesium	**1370000**	**50000**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1DV**
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 218	
Manganese	**7740**	**150**	**ug/L**	**SW846 6010B**	**04/13-04/23/09**	**K9WFK1DW**
		Dilution Factor: 10		Analysis Time..: 09:36	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 5.7	
Molybdenum	ND	400	ug/L	SW846 6010B	04/13-04/22/09	K9WFK1DX
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 8.5	
Sodium	**36400000**	**500000**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1D0**
		Dilution Factor: 100		Analysis Time..: 16:38	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 14500	
Nickel	ND	2000	ug/L	SW846 6010B	04/13-04/22/09	K9WFK1D1
		Dilution Factor: 50		Analysis Time..: 16:33	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 39.0	

(Continued on next page)

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 14

DISSOLVED Metals

Lot-Sample #...: C9D090299-001 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	ND	150	ug/L	SW846 6010B	04/13-04/22/09	K9WFK1D2
		Dilution Factor: 50		Analysis Time..: 16:33	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 85.5	
Selenium	ND	50.0	ug/L	SW846 6010B	04/13-04/22/09	K9WFK1D4
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 29.0	
Strontium	**2330000**	**25000**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1D6**
		Dilution Factor: 500		Analysis Time..: 16:42	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 60.0	
Zinc	**92.8 B**	**200**	**ug/L**	**SW846 6010B**	**04/13-04/22/09**	**K9WFK1D9**
		Dilution Factor: 10		Analysis Time..: 16:28	Analyst ID.....: 022952	
		Instrument ID..: 6500ICP		MS Run #.....:	MDL.....: 30.6	
Prep Batch #...: 9105155						
Mercury	ND	0.20	ug/L	SW846 7470A	04/15/09	K9WFK1ED
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 403938	
		Instrument ID..: HGHYDRA		MS Run #.....: 9105060	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C9D090299 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: C9D130000-098 **Prep Batch #...:** 9103098						
Aluminum	ND	200	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AA
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Arsenic	ND	10.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AD
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Barium	ND	200	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AE
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Beryllium	ND	4.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AF
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Boron	**1.3 B**	**200**	**ug/L**	**SW846 6010B**	**04/13-04/21/09**	**K91QH1AG**
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Cadmium	ND	5.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AH
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Calcium	ND	5000	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AJ
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Chromium	ND	5.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1A6
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Cobalt	ND	50.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AK
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Copper	ND	25.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AL
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	

(Continued on next page)

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C9D090299 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Iron	ND	100	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AM
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Lead	ND	3.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AN
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Lithium	ND	50.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AP
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Magnesium	ND	5000	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AQ
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Manganese	ND	15.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AR
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Molybdenum	ND	40.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AT
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Nickel	ND	40.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AU
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
-	--					V
Selenium	ND	5.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AW
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Silver	ND	5.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1AX
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Sodium	ND	5000	ug/L	SW846 6010B	04/13-04/21/09	K91QH1A0
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	
Strontium	ND	50.0	ug/L	SW846 6010B	04/13-04/21/09	K91QH1A1
		Dilution Factor: 1				
		Analysis Time..: 11:20		Analyst ID.....: 22952	Instrument ID..: 650	

(Continued on next page)

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C9D090299 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD		PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: C9D130000-184 **Prep Batch #...:** 9103184							
Mercury	ND	0.20	ug/L	SW846 7470A		04/13/09	K91V81AA
		Dilution Factor: 1					
		Analysis Time..: 13:34		Analyst ID.....: 403938		Instrument ID..: HGH	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 14

GC/MS Volatiles

Lot-Sample #...:	C9D090299-001	**Work Order #...:**	K9WFK1EE	**Matrix.....:**	WATER
Date Sampled...:	04/09/09	**Date Received..:**	04/09/09	**MS Run #.....:**	9104133
Prep Date.....:	04/14/09	**Analysis Date..:**	04/14/09		
Prep Batch #...:	9104245	**Analysis Time..:**	17:03		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
Analyst ID.....:	034635	**Instrument ID..:**	HP7		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL	
Benzene	**360 E**	**5.0**	**ug/L**	**0.99**	

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 14

GC/MS Volatiles

Lot-Sample #...: C9D090299-001 **Work Order #...:** K9WFK1EE **Matrix.....:** WATER

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Toluene		430 E	5.0	ug/L	0.85

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 14

Radiochemistry

Lab Sample ID: C9D090301-001
Work Order: K9WGJ
Matrix: WATER

Date Collected: 04/09/09 1445
Date Received: 04/09/09 1650

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 9105288	Yld %
Lead 210	90	U	280		360	04/15/09	05/06/09
Lead 212	37		22		28	04/15/09	05/06/09
Lead 214	925		92		38	04/15/09	05/06/09
Radium (226)	861		84		43	04/15/09	05/06/09
Radium 228	655		66	50	42	04/15/09	05/06/09
Thorium 227	-49	U	73		120	04/15/09	05/06/09
Thorium 234	10	U	220		390	04/15/09	05/06/09
Uranium 235	-40	U	200		120	04/15/09	05/06/09
Uranium 238	10	U	220		390	04/15/09	05/06/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 14 DUP

Radiochemistry

Lab Sample ID: C9D090301-001X
Work Order: K9WGJ
Matrix: WATER

Date Collected: 04/09/09 1445
Date Received: 04/09/09 1650

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L		Batch # 9105288		Yld %
Lead 210	160	U	380		630	04/15/09	05/06/09
Lead 212	-20	U	1400		40	04/15/09	05/06/09
Lead 214	976		80		39	04/15/09	05/06/09
Radium (226)	885		72		25	04/15/09	05/06/09
Radium 228	751		71	50	48	04/15/09	05/06/09
Thorium 227	-23	U	68		110	04/15/09	05/06/09
Thorium 234	140	U	330		480	04/15/09	05/06/09
Uranium 235	-30	U	14000		100	04/15/09	05/06/09
Uranium 238	140	U	330		480	04/15/09	05/06/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Id results are greater than the MDC.

U Result is less than the sample detection limit.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. CC6H8H-DAY 90

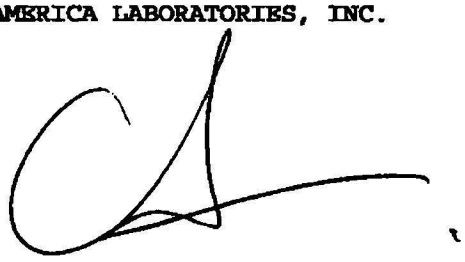
Table 1

Lot #: C9F300106

Tony Gaudlip

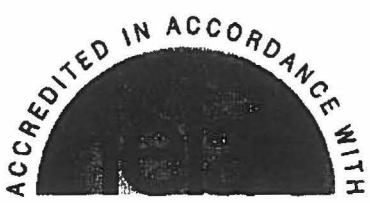
Range Resources Corporation
380 Southpointe Blvd
Suite 300
Canonsburg, PA 15317

TESTAMERICA LABORATORIES, INC.



Christina M. Kovitch
Project Manager

July 28, 2009



NELAC REPORTING:

At the time of analysis the laboratory was in compliance with the current NELAC standards and held accreditation for all analyses performed unless noted by a qualifier. The labs accreditation numbers are listed below. The format and contents of the report meets all applicable NELAC standards except as noted in the narrative and shall not be reproduced except in full, without the written approval of the laboratory. The table below presents a summary of the certifications held by TestAmerica Pittsburgh. Our primary accreditation authority for the Non-potable water and Solid & Hazardous waste programs is Pennsylvania DEP. A more detailed parameter list is available upon request. Please ask your project manager for this information when required.

Certifying State/Program	Certificate #	Program Types	TestAmerica
NFESC	NA	NAVY	X
US Dept of Agriculture	(#P330-07-00101)	Foreign Soil Import Permit	X
Arkansas	(#88-0690)	WW	X
		HW	X
California – NELAC	04224CA	WW	X
		HW	X
Connecticut	(#PH-0688)	WW	X
		HW	X
Florida – NELAC	(#E871008-04)	WW	X
		HW	X
Illinois – NELAC	(#002064)	WW	X
		HW	X
Kansas – NELAC	(#E-10350)	WW	X
		HW	X
Louisiana – NELAC	(#04041)	WW	X
		HW	X
New Hampshire – NELAC	(#203008)	WW	X
		--	--
New Jersey – NELAC	(PA-005)	WW	X
		HW	X
New York – NELAC	(#11182)	WW	X
		HW	X
North Carolina	(#434)	WW	X
		HW	X
Pennsylvania - NELAC	(#02-00416)	WW	X
		HW	X
South Carolina	(#89014002)	WW	X
		HW	X
Utah – NELAC	(STLP)	WW	X
		HW	X
West Virginia	(#142)	WW	X
		HW	X
Wisconsin	998027800	WW	X
		HW	X

The codes utilized for program types are described below:

HW Hazardous Waste certification
WW Non-potable Water and/or Wastewater certification
X Laboratory has some form of certification under the specific program. Many states certify laboratories for specific parameters or tests within a category. The information in the table indicates the lab is certified in a general category of testing. Please contact the laboratory if parameter specific certification information is required.

Updated: 2/5/2009 C:\Documents and Settings\derubeisn\My Documents\NELAC NARRATIVE Pttsburgh.doc

C9F300106

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

COC ID: KOVITCHC16972-1141-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Table 1	Quote #: [redacted]	Client:
Date:	6-29-09	Carrier/Waybill #: Range	
Project Manager:	Amanda Baynes		
Phone:	412-849-5403		

URS Corporation
Foster Plaza 4
501 Holiday Drive
Suite 300
Pittsburgh
PA 15220

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
CCL48H-Dg 90	6-29-09/0930	WATER	1LP	Plastic -1 Liter	1	None	WATER, MBAS,Sulfite (TA Nashville)
		WATER	1LP	Plastic -1 Liter	1	None	WATER, TDS, TSS, T-Alk-I Br,Cl,Fl
		WATER	250P	Plastic - 250mL	1	Sulfuric Acid	WATER, TKN, T-Phos N.Canton
		WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, Oil and Grease
		WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, Total Hardness
		WATER	250P	Plastic - 250mL	1	None	WATER, 300.0A, Nitrate ,Nitrite, Sulfate,pH
		WATER	250AP	Plastic - 250mL (8oz) Amber	1	Sodium Hydroxide	WATER, 4500-CN E, Free Cyanide N.Canton
		WATER	1lp	Plastic -1 Liter	1	None	WATER, 5210 B, BOD N.Canton
		WATER	VV	Glass - 40mL Vial	3	None	WATER, 5310B, Dissolved Organic Carbon (Filter at lab)
		WATER	VV	Glass - 40mL Vial	3	Sulfuric Acid	WATER, 5310B, TOC
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metals (Sp.List) (Filter in Lab)
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals (Sp.List)
		WATER	250P	Plastic - 250mL	1	None	WATER, 7196A, Diss Hexavalent Cr (needs filted in lab)
		WATER	250P	Plastic - 250mL	1	None	WATER, 7196A, Total Hexavalent Chromium
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8015 DAI TA Buffalo

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____	QC Level: ___ I ___ II ___ III	Project Specific Requirements (Specify):	
Relinquished by: [signature]	Date/Time: 6-29-09/1640	Received by: [signature] TA	Date/Time: 6/29/09 1640
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:
Comments:			

Attachment C

(1 - 192)

C9F300106

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

COC ID: KOVITCHC16972-1141-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Table 1	Quote #: [redacted]	Client:
Date:	6-29-09	Carrier/Waybill #: Range	
Project Manager:	Amanda Baynes		
Phone:	412-849-5403		

URS Corporation
Foster Plaza 4
501 Holiday Drive
Suite 300
Pittsburgh
PA 15220

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
CCLH8H Dup 96	6-29-09/0930	WATER	VV	Glass - 40mL Vial	3	None	WATER, 8015 Glycols TA Buffalo
		WATER	1LAG	Glass - 1 Liter Amber	2	None	WATER, 8081A, Pesticides
		WATER	1LAG	Glass - 1 Liter Amber	2	None	WATER, 8082, PCBs (8082)
		WATER	1LAG	Glass - 1 Liter Amber	2	None	WATER, 8141A, Organophos
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (Sp. List)
		WATER	1LAG	Glass - 1 Liter Amber	2	None	WATER, 8270C, BNA Sp. List
		WATER	1GP	Plastic - 1 Gallon	1	Nitric Acid	WATER, 901.1 MOD, Gamma Cs-137 & Hits by
		WATER	250P	Plastic - 250mL	1	Sodium Hydroxide	WATER, 9012A, Total Cyanide
		WATER	250P	Plastic - 250mL	1	Zinc Acetate/NaOH	WATER, 9030B/9034, Total Sulfide
		WATER	4oz	Glass - 4oz (125mL)	2	Sulfuric Acid	WATER, 9066, Phenolics
		WATER	250P	Plastic - 250mL	1	Sulfuric Acid	WATER, Ammonia Nitrogen, Nitrate-Nitrite,COD
		WATER	VVAG	Amber Glass - 40 mL Vial	3	None	WATER, Fatty Acid TA Buffalo
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Osmotic Pressure MJ Reider
		WATER	2oz	Plastic - 2oz	1	None	WATER, Total Coliform Microbac
		WATER	500P	Plastic - 500mL (16oz)	1	None	WATER, TVA TA Watertown

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by: [signature] URS	Date/Time: 6-29-09/1610	Received by: [signature] TA	Date/Time: 6/29/09 1610
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

Comments:

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Attachment C

C9F300106

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

COC ID: KOVITCHC16972-1141-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Table 1	Quote #:	[redacted]	Client:	URS Corporation Foster Plaza 4 501 Holiday Drive Suite 300 Pittsburgh PA 15220
Date:	6-29-09	Carrier/Waybill #:	Paige		
Project Manager:	Amanda Baynes				
Phone:	412-849-5403				

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
CLCHEM-DUP	6-29-09/0930	WATER	1LP	Plastic -1 Liter	1	None	WATER,Specific Conductivity , Turbidity, Acidity

Special Requirements:			
Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown	Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months (A fee may apply if samples are retained longer than 3 months)		
Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other ____	QC Level: ___I ___II ___III	Project Specific Requirements (Specify):	
Relinquished by: [signature] MKS	Date/Time: 6-29-09/1610	Received by: [signature] TA	Date/Time: 6/29/09 1610
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:
Comments:			

Attachment C

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TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation — PAGE 1

Lot #: C9F300106 — Table 1 — **Date Reported:** 7/16/09

Project Number: CC6H8H-DAY 90

PARAMETER		RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: CC6H8H-DAY 90						
Sample #: 001 Date Sampled: 06/29/09 09:30 Date Received: 06/29/09 Matrix: WATER						
Trivalent Chromium Trivalent Chromium						Reviewed
Trace Inductively Coupled Plasma (ICP) Metals						Reviewed
Silver		ND	50.0	ug/L	SW846 6010B	
Aluminum		2570	2000	ug/L	SW846 6010B	
Arsenic		109	100	ug/L	SW846 6010B	
Barium		87200	2000	ug/L	SW846 6010B	
Beryllium		ND	40.0	ug/L	SW846 6010B	
Boron		12700	2000	ug/L	SW846 6010B	
Calcium		19800000	500000	ug/L	SW846 6010B	
Cadmium		3.2 B	50.0	ug/L	SW846 6010B	
Cobalt		ND	5000	ug/L	SW846 6010B	
Chromium		15.8 B	50.0	ug/L	SW846 6010B	
Copper		ND	250	ug/L	SW846 6010B	
Iron		68700	1000	ug/L	SW846 6010B	
Lithium		105000	1000	ug/L	SW846 6010B	
Magnesium		1830000	50000	ug/L	SW846 6010B	
Manganese		8990	150	ug/L	SW846 6010B	
Molybdenum		ND	400	ug/L	SW846 6010B	
Sodium		39000000	500000	ug/L	SW846 6010B	
Nickel		ND	4000	ug/L	SW846 6010B	
Lead		ND	300	ug/L	SW846 6010B	
Selenium		49.9 B	50.0	ug/L	SW846 6010B	
Strontium		3410000	25000	ug/L	SW846 6010B	
Zinc		218	200	ug/L	SW846 6010B	
Silver	Dissolved	ND	50.0	ug/L	SW846 6010B	
Aluminum	Dissolved	ND	2000	ug/L	SW846 6010B	
Arsenic	Dissolved	99.0 B	100	ug/L	SW846 6010B	
Barium	Dissolved	104000	2000	ug/L	SW846 6010B	

(Continued on next page)

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

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Range Resources Corporation — PAGE 2

Lot #: C9F300106 — Table 1 — **Date Reported:** 7/16/09

Project Number: CC6H8H-DAY 90

PARAMETER		RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: CC6H8H-DAY 90						
Sample #: 001 Date Sampled: 06/29/09 09:30 Date Received: 06/29/09 Matrix: WATER						
Beryllium	Dissolved	ND	40.0	ug/L	SW846 6010B	
Boron	Dissolved	15900	2000	ug/L	SW846 6010B	
Calcium	Dissolved	24600000	500000	ug/L	SW846 6010B	
Cadmium	Dissolved	2.8 B	50.0	ug/L	SW846 6010B	
Cobalt	Dissolved	46.0 B	5000	ug/L	SW846 6010B	
Chromium	Dissolved	16.0 B	50.0	ug/L	SW846 6010B	
Copper	Dissolved	32.4 B	250	ug/L	SW846 6010B	
Iron	Dissolved	74200	1000	ug/L	SW846 6010B	
Lithium	Dissolved	127000	1000	ug/L	SW846 6010B	
Magnesium	Dissolved	2320000	50000	ug/L	SW846 6010B	
Manganese	Dissolved	11000	150	ug/L	SW846 6010B	
Molybdenum	Dissolved	ND	400	ug/L	SW846 6010B	
Sodium	Dissolved	47800000	500000	ug/L	SW846 6010B	
Nickel	Dissolved	ND	4000	ug/L	SW846 6010B	
Lead	Dissolved	ND	300	ug/L	SW846 6010B	
Selenium	Dissolved	ND	50.0	ug/L	SW846 6010B	
Strontium	Dissolved	4140000	25000	ug/L	SW846 6010B	
Zinc	Dissolved	250	200	ug/L	SW846 6010B	
Mercury in Liquid Waste (Manual Cold-Vapor)						Reviewed
Mercury		ND	0.20	ug/L	SW846 7470A	
Mercury	Dissolved	ND	0.20	ug/L	SW846 7470A	

B Estimated result. Result is less than RL.

Organochlorine Pesticides						Reviewed
alpha-BHC		ND	0.049	ug/L	SW846 8081A	
beta-BHC		ND	0.049	ug/L	SW846 8081A	

(Continued on next page)

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

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Range Resources Corporation

Lot #: C9F300106 Table 1 **Date Reported:** 7/16/09

Project Number: CC6H8H-DAY 90

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD

Client Sample ID: CC6H8H-DAY 90

Sample #: 001 Date Sampled: 06/29/09 09:30 Date Received: 06/29/09 Matrix: WATER

✔ Benzene	290	250	ug/L	SW846 8260B

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation

Lot #: C9F300106 Table 1 **Date Reported:** 7/16/09

Project Number: CC6H8H-DAY 90

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: CC6H8H-DAY 90				
Sample #: 001 Date Sampled: 06/29/09 09:30 Date Received: 06/29/09 Matrix: WATER				
✔ **Toluene**	**1600**	**250**	**ug/L**	**SW846 8260B**

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation — PAGE 13

Lot #: C9F300106 — Table 1 — **Date Reported:** 7/16/09

Project Number: CC6H8H-DAY 90

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Client Sample ID: CC6H8H-DAY 90				
Sample #: 001 Date Sampled: 06/29/09 09:30 Date Received: 06/29/09 Matrix: WATER				
Semivolatile Organic Compounds by GC/MS				Reviewed
Aramite	ND	94	ug/L	SW846 8270C
Inorganic Analysis				Reviewed
Acidity (Titrimetric) 2310B (4a)	388	5.0	mg/L	SM20 2310B (4a)
Alkalinity, Total	11.5	5.0	mg/L	SM18 2320 B
Biochemical Oxygen Demand	12400	2.0	mg/L	SM18 5210 B
Chemical Oxygen Demand	18400	250	mg/L	MCAWW 410.4
Specific Conductance	480000	500	umhos/cm	MCAWW 120.1
HARDNESS, TOTAL	77000	2500	mg/L	SM20 2340C
N-Hexane Extractable Material (1664A)	802	4.6	mg/L	CFR136A 1664A HEM
Bromide	1600	10.0	mg/L	MCAWW 300.0A
Chloride	138000	2500	mg/L	MCAWW 300.0A
Sulfate	32.8 B	50.0	mg/L	MCAWW 300.0A
Nitrogen, Ammonia	168	5.0	mg/L	MCAWW 350.1
Nitrate-Nitrite	ND	0.10	mg/L	MCAWW 353.2
Phenolics	0.23	0.010	mg/L	SW846 9066
pH Aqueous	5.9	0.10	No Units	SW846 9040
Total Dissolved Solids SM 2540 C	200000	200	mg/L	SM18 2540 C
Total Kjeldahl Nitrogen	87.7	3.0	mg/L	MCAWW 351.3

J Estimated result. Result is less than RL.

(Continued on next page)

TESTAMERICA LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Range Resources Corporation

Lot #: C9F300106 Table 1 **Date Reported:** 7/16/09

Project Number: CC6H8H-DAY 90

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: CC6H8H-DAY 90					
Sample #: 001 Date Sampled: 06/29/09 09:30 Date Received: 06/29/09 Matrix: WATER					
Total Suspended Solids SM 2540 D					Reviewed
✓ **Total Suspended Solids**	**83.0**	**4.0**	**mg/L**	**SM20 2540D**	

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 90

General Chemistry

Lot-Sample #...: C9F300106-001 **Work Order #...:** LFT1Q **Matrix.....:** WATER
Date Sampled...: 06/29/09 **Date Received..:** 06/29/09

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH	5.9	0.10	No Units	SW846 9040	06/30/09	9181361
		Dilution Factor: 1		Analysis Time..: 16:25	MS Run #.....:	9181194
		MDL.....:				
Acidity	388	5.0	mg/L	SM20 2310B (4a)	07/13/09	9194151
		Dilution Factor: 1		Analysis Time..: 00:00	MS Run #.....:	9194077
		MDL.....: 5.0				
Ammonia Nitrogen	168 J	5.0	mg/L	MCAWW 350.1	07/02/09	9182130
		Dilution Factor: 50		Analysis Time..: 00:00	MS Run #.....:	
		MDL.....: 0.47				
Biochemical Oxygen Demand (BOD)	12400	2.0	mg/L	SM18 5210 B	07/01-07/06/09	9182392
		Dilution Factor: 1		Analysis Time..: 00:00	MS Run #.....:	
		MDL.....: 2.0				
Bromide	1600	10.0	mg/L	MCAWW 300.0A	06/30/09	9181426
		Dilution Factor: 50		Analysis Time..: 00:00	MS Run #.....:	
		MDL.....: 0.72				
Chemical Oxygen Demand (COD)	18400	250	mg/L	MCAWW 410.4	07/10-07/11/09	9191376
		Dilution Factor: 25		Analysis Time..: 09:38	MS Run #.....:	9191235
		MDL.....: 130				
Chloride	138000 J	2500	mg/L	MCAWW 300.0A	07/14/09	9195342
		Dilution Factor: 2500		Analysis Time..: 00:00	MS Run #.....:	9195181
		MDL.....: 132				

(Continued on next page)

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 90

General Chemistry

Lot-Sample #...: C9F300106-001 **Work Order #...:** LFT1Q **Matrix.....:** WATER

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hardness, as CaCO3	**77000**	**2500**	**mg/L**	**SM20 2340C**	**07/13/09**	**9194198**
		Dilution Factor: 500		Analysis Time..: 00:00	MS Run #.....: 9194125	
		MDL.....: 769				
Nitrate-Nitrite	ND	0.10	mg/L	MCAWW 353.2	07/14/09	9195150
		Dilution Factor: 1		Analysis Time..: 13:24	MS Run #.....: 9195086	
		MDL.....: 0.010				
Oil & Grease (HEM)	**802**	**4.6**	**mg/L**	**CFR136A 1664A HEM**	**07/01/09**	**9182113**
		Dilution Factor: 0.93		Analysis Time..: 13:00	MS Run #.....:	
		MDL.....: 1.5				

(Continued on next page)

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 90

General Chemistry

Lot-Sample #...: C9F300106-001 Work Order #...: LFT1Q Matrix.....: WATER

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Specific Conductance	**480000 J**	**500**	**umhos/cm**	**MCAWW 120.1**	**07/01/09**	**9182161**
	Dilution Factor: 500			Analysis Time..: 00:00	MS Run #.....: 9182143	
	MDL.....:					
Sulfate	**32.8 B,J**	**50.0**	**mg/L**	**MCAWW 300.0A**	**06/30/09**	**9181423**
	Dilution Factor: 50			Analysis Time..: 00:00	MS Run #.....: 9181238	
	MDL.....: 1.6					
Total Alkalinity	**11.5 J**	**5.0**	**mg/L**	**SM18 2320 B**	**07/08-07/09/09**	**9189249**
	Dilution Factor: 1			Analysis Time..: 00:00	MS Run #.....: 9189142	
	MDL.....: 0.41					
Total Dissolved Solids	**200000**	**200**	**mg/L**	**SM18 2540 C**	**06/30-07/01/09**	**9181411**
	Dilution Factor: 1			Analysis Time..: 08:20	MS Run #.....: 9181231	
	MDL.....: 10.0					
Total Kjeldahl Nitrogen	**87.7**	**3.0**	**mg/L**	**MCAWW 351.3**	**07/13-07/14/09**	**9194330**
	Dilution Factor: 1			Analysis Time..: 00:00	MS Run #.....: 9194194	
	MDL.....: 2.0					
Total Sulfide	**4.8**	**3.0**	**mg/L**	**SW846 9030B/9034**	**06/30/09**	**9181194**
	Dilution Factor: 1			Analysis Time..: 16:00	MS Run #.....:	
	MDL.....: 1.2					
Total Suspended Solids	**83.0**	**4.0**	**mg/L**	**SM20 2540D**	**06/30-07/01/09**	**9181412**
	Dilution Factor: 1			Analysis Time..: 08:30	MS Run #.....: 9181232	
	MDL.....: 2.0					

(Continued on next page)

TestAmerica Pittsburgh
01 Alpha Drive; RIDC Park
Pittsburgh, PA 15238

SDG Number: C9F300106

Project: Range Resources Corporation
Project Number: C9F300106

Received: 07/01/09
Reported: 07/14/09 14:53

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: CC6H8H-DAY 90 (RSG0056-01 - Water)						**Sampled: 06/29/09 09:30**		**Recvd: 07/01/09 09:00**	
Non-Halogenated Volatile Organics									
Ethylene Glycol	290	D02	250	mg/L	25.0	07/02/09 19:45	GFD	9G02002	8015
1,4-Butanediol	*	*D02*	*Surr Limits: (66-130%)*			*07/02/09 19:45*	*GFD*	*9G02002*	*8015*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	TestAmerica Pittsburgh	Work Order:	NSG0005
	301 Alpha, RIDC Park	Project Name:	TA-Pennsylvania Sites
	Pittsburgh, PA 15238	Project Number:	C9F300106
Attn	Chris Kovitch	Received:	07/01/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSG0005-01 (CC6H8H-DAY 90 - Water) Sampled: 06/29/09 09:30								
General Chemistry Parameters								
MBAS (mol.wt 320)	0.699	HT3	mg/L	0.0500	1	07/01/09 11:50	SM5540 C	9070081

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 90

Radiochemistry

Lab Sample ID: C9F300107-001
Work Order: LFT1R
Matrix: WATER

Date Collected: 06/29/09 0930
Date Received: 06/29/09 1610

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD			**pCi/L**		**Batch # 9195333**		**Yld %**
Lead 210	70	U	310		540	07/14/09	08/04/09
Lead 212	8	U	35		60	07/14/09	08/04/09
Lead 214	**1280**		**140**		**70**	**07/14/09**	**08/04/09**
Radium (226)	**1270**		**120**		**50**	**07/14/09**	**08/04/09**
Radium 228	**1100**		**120**	50	**70**	**07/14/09**	**08/04/09**
Thorium 227	2	U	100		180	07/14/09	08/04/09
Thorium 234	150	U	380		640	07/14/09	08/04/09
Uranium 235	40	U	110		190	07/14/09	08/04/09
Uranium 238	150	U	380		640	07/14/09	08/04/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Yld results are greater than the MDC.

U Result is less than the sample detection limit.

Range Resources Corporation

Client Sample ID: CC6H8H-DAY 90 DUP

Radiochemistry

Lab Sample ID: C9F300107-001X
Work Order: LFT1R
Matrix: WATER

Date Collected: 06/29/09 0930
Date Received: 06/29/09 1610

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**	**Batch # 9195333**		**Yld %**
Lead 210	-120	U	890		470	07/14/09	08/04/09
Lead 212	17	U	31		52	07/14/09	08/04/09
Lead 214	**1280**		**110**		**50**	**07/14/09**	**08/04/09**
Radium (226)	**1140**		**120**		**60**	**07/14/09**	**08/04/09**
adium 228	**1120**		**120**	50	**50**	**07/14/09**	**08/04/09**
Thorium 227	-40	U	110		190	07/14/09	08/04/09
Thorium 234	90	U	310		530	07/14/09	08/04/09
Uranium 235	-2	U	98		170	07/14/09	08/04/09
Uranium 238	90	U	310		530	07/14/09	08/04/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
ld results are greater than the MDC.

U Result is less than the sample detection limit.