August 5, 2015

Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

REVIEWED
AUG 10 2015
By

H

UR/84705

2015 AUG 10 PM 2:01
CHIEF CLERKS OFFICE

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Candelario Q Benavente.

My mailing address is 383 N CR 1010, Kingsville, Texas 78363.

My day time telephone number is 522-0982.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live near the digging.

I would be adversely affected by the proposed permit and major amendment because I am elderly and of poor health.

Sincerely,

signature

Candelario Q Benavente

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

8/7/15
Attn: Clerk
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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TEXAS
ON COMMISSION
ENVIRONMENTAL
QUALITY
2015 AUG 10 PM 2:59
CHIEF CLERKS OFFICE

August __, 2015

Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

REVIEWED
AUG 10 2015
By MP

H UR/84705

2015 AUG 10 PM 3:01
CHIEF CLERK'S OFFICE
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Heraclio Benavente.

My mailing address is 381 N CR 1070, Kingsville, Texas 78363.

My day time telephone number is 361-455-1117.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live within the drilling zone.

I would be adversely affected by the proposed permit and major amendment because it contaminates our water.

Sincerely,

Heraclio Benavente
signature

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

8/7/15
Attn: Clerk
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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2015 AUG 10 PM 2:52
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August 5, 2015

Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

REVIEWED
AUG 10 2015
By

H

UR/84705

2015 AUG 10 PM 3:01
CHIEF CLERKS OFFICE

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Maria Del Rosario Benavente

My mailing address is 383 N CR 1070, Kingsville, Texas 78363.

My day time telephone number is 522-0942.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live near all the digging.

I would be adversely affected by the proposed permit and major amendment because I am of poor health.

Sincerely,

signature

Maria del R. Benavente

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

8/7/15
Attn: Clerk
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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QUALITY
2015 AUG 10 PM 2:59
CHIEF CLERKS OFFICE

August __, 2015

Bridget C. Bohac, Chief Clerk
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By AP

H UR/84705

CHIEF CLERKS OFFICE
2015 AUG 10 PM 3:01
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Sabina Benavente.

My mailing address is 381 N CR 1070, Kingsville, Texas 78363.

My day time telephone number is 361-455-1117.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live within the drilling zone

I would be adversely affected by the proposed permit and major amendment because it affects our water and land

Sincerely,

Sabina Benavente
signature

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

Attn: Clerk 8/7/15
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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August 3, 2015

Bridget C. Bohac, Chief Clerk
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Austin, Texas 78711-3087

REVIEWED
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By

2015 AUG 10 PM 3:00
CHIEF CLERKS OFFICE
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

UR/84705

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Marie Bippert.

My mailing address is 679 E CR 2160, Kingsville, Texas 78363.

My day time telephone number is 361-522-3340.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I own property, including a well, close to the URI uranium mine. My property is about a little more than half of a mile from the mine; I have property in blocks 50 and 54.

I would be adversely affected by the proposed permit and major amendment because the uranium mine is contaminating the groundwater at Garcia Hill. My well is in the same aquifer and I am concerned about my groundwater.

Sincerely,

Marie Bippert

Marie Bippert

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

8/7/15
Attn: Clerk
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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August 3, 2015

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Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

REVIEWED
AUG 10 2015
By

UR/84705

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is William Bippert.

My mailing address is 679 E CR 2160, Kingsville, Texas 78363.

My day time telephone number is 361-522-4255.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I own property, including a well and live close to the URI uranium mine. My property is about a little more than half of a mile from the mine; I have property in blocks 50 and 54.

I would be adversely affected by the proposed permit and major amendment because the uranium mine is contaminating the groundwater at Garcia Hill. My well is in the same aquifer and I am concerned about my groundwater.

Sincerely,

Will Bippert

Will Bippert

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

Attn: Clerk 8/7/15
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY

2015 AUG 10 PM 2:52

CHIEF CLERKS OFFICE

Marisa Weber

From:	PUBCOMMENT-OCC
Sent:	Thursday, August 13, 2015 12:37 PM
To:	PUBCOMMENT-WPD; PUBCOMMENT-ELD; PUBCOMMENT-OCC2; PUBCOMMENT-OPIC
Subject:	FW: Public comment on Permit Number UR02827

H

From: bruce.cumberland@comcast.net [mailto:bruce.cumberland@comcast.net]
Sent: Thursday, August 13, 2015 12:02 PM
To: DoNot Reply
Subject: Public comment on Permit Number UR02827

UIC/84705

REGULATED ENTY NAME KINGSVILLE DOME

RN NUMBER: RN102380763

PERMIT NUMBER: UR02827

DOCKET NUMBER:

COUNTY: KLEBERG

PRINCIPAL NAME: URI INC

CN NUMBER: CN600604417

FROM

NAME: BruceC Cumberland

E-MAIL: bruce.cumberland@comcast.net

COMPANY:

ADDRESS: 11812 LINDEN GROVE DR
FORT WAYNE IN 46845-1961

PHONE: 2602271128

FAX:

COMMENTS: request a contested case hearing. I am concerned about possible contamination of the groundwater. I have a personal justiciable interest because I own a share of the minerals inside PAA3 - in 160 acres of PAA3, Lots 3-6, Section 48, Kleberg County, Texas. These mineral interests are filed in Vol. 435, page 775 (Trustee's deed) of the Kleberg County deed records.

MW

Marisa Weber

From:	PUBCOMMENT-OCC
Sent:	Wednesday, August 12, 2015 9:07 AM
To:	PUBCOMMENT-WPD; PUBCOMMENT-ELD; PUBCOMMENT-OCC2; PUBCOMMENT-OPIC
Subject:	FW: Public comment on Permit Number UR02827

UR/84705

From: brucecumberland@comcast.net [mailto:brucecumberland@comcast.net]
Sent: Wednesday, August 12, 2015 9:02 AM
To: DoNot Reply
Subject: Public comment on Permit Number UR02827

REGULATED ENTY NAME KINGSVILLE DOME

RN NUMBER: RN102380763

PERMIT NUMBER: UR02827

DOCKET NUMBER:

COUNTY: KLEBERG

PRINCIPAL NAME: URI INC

CN NUMBER: CN600604417

FROM

NAME: Bruce Cumberland

E-MAIL: brucecumberland@comcast.net

COMPANY:

ADDRESS: 11812 LINDEN GROVE DR
FORT WAYNE IN 46845-1961

PHONE: 2602271128

FAX:

COMMENTS: I am concerned about possible contamination of the groundwater. I have a personal interest because I own a share of the minerals inside PAA3 - in 160 acres of PAA3, Lots 3-6, Section 48, Kleberg County, Texas.

MW

Marisa Weber

From:	PUBCOMMENT-OCC
Sent:	Wednesday, August 12, 2015 8:43 AM
To:	PUBCOMMENT-WPD; PUBCOMMENT-ELD; PUBCOMMENT-OCC2; PUBCOMMENT-OPIC
Subject:	FW: Public comment on Permit Number UR02827
Attachments:	Contested Hearing -URI.pdf

H

UR/84705

From: dale.cumberland@yahoo.com [mailto:dale.cumberland@yahoo.com]
Sent: Tuesday, August 11, 2015 8:23 PM
To: DoNot Reply
Subject: Public comment on Permit Number UR02827

REGULATED ENTY NAME KINGSVILLE DOME

RN NUMBER: RN102380763

PERMIT NUMBER: UR02827

DOCKET NUMBER:

COUNTY: KLEBERG

PRINCIPAL NAME: URI INC

CN NUMBER: CN600604417

FROM

NAME: Dale Cumberland

E-MAIL: dale.cumberland@yahoo.com

COMPANY:

ADDRESS: 1421 SLEEPY HOLLOW LN
NEW BRAUNFELS TX 78130-3341

PHONE: 8306062367

FAX:

COMMENTS: Office of the Chief Clerk, MC 105 TCEQ P.O. Box 13087 Austin, Texas 78711-3087 Re: Request for Contested Hearing, Permit No. UR02827, URI's Kingsville Dome Mine Application for Renewal and Major Amendment for Class III Area Permit I am requesting a contested case hearing on URI's application for a renewal permit and major amendment. I am Dale Cumberland. My mailing address is 1421 Sleepy Hollow

Lane, New Braunfels, TX 78130. My day time telephone number is 830-606-2367. The applicant is URI, Inc. The permit number is UR02827. I request a contested case hearing. I have a personal justiciable interest because I own the surface to 53.33 acres described as KT & I Co, Block 41, Lot E 53.33 AC 11-14 that is located within PAA3. In addition, I own a share of the minerals inside PAA3 - in 160 acres of PAA3, Lots 3-6, Section 48, Kleberg County, Texas. These mineral interests are filed in Vol. 435, page 775 (Trustee's deed) of the Kleberg County deed records. I would be adversely affected by the proposed permit and major amendment. Allowing URI to have the proposed permit and major amendment will interfere with the use and enjoyment of my property and cause me personal financial harm. This land has been in my family for more than 75 years, land that my father bought, cleared and farmed. After my parents passing, I acquired the surface of the 53.33 acres from my siblings and jointly inherited the minerals in the adjoining 160 acre tract. I grew up in a farm house immediately adjacent to the current mine field with my 11 brothers and sisters, drinking water produced by a windmill that was clean and pure. The water was used not only for drinking and bathing, but for the many farm animals that we had and for irrigating a sizable garden and orchards that we used to sustain our family. The water was precious in the arid area of South Texas, and we were admonished daily to not be wasteful of such a precious resource. I can still remember when my father entered into negotiations with URI, when Bill McKnight assured my father that mining the uranium from the ground water would do no damage to the water. My father was told that only oxygen would be injected into the ground water, bringing up the uranium that rested in a stable bed located in the ground water below. My father was assured that the water would be returned to the way that it was before mining, and that there would be no threat to the water which we all depended on for our very lives. It was only with these assurances that my father agreed to allow exploration and mining of uranium on his land. It has now been over 30 years since these promises were made. The ground water was contaminated by not only uranium that was dissolved by the oxygen, but by other dangerous compounds as well. The water has not been restored as promised, and now URI seeks to amend their promises made to my father, family, neighbors and the State of Texas by allowing higher levels of dangerous mining products, including uranium, to remain in the ground water. They say that the ground water will be essentially the same as when they found it, but this is simply not true. Water that my family and neighbors depended on for their lives has been rendered unusable, and the risk of this damaged water spreading to neighboring areas is real. It is my understanding that I own not only the surface of the land, but the rights to the ground water below it. URI has contaminated this water, rendering it unusable for domestic and agricultural use. This has significantly impacted the value of this land, and allowing it to remain in this state will cause me financial harm. Allowing URI to have the proposed permit and major amendment will interfere with the use and enjoyment of my property. I only ask that the State of Texas require URI to do what it promised to do – to restore the water to its original condition. I am opposed to allowing URI to amend the Restoration Table, resulting in elevated concentrations of uranium and other possible harmful compounds in the water. Sincerely, Dale Cumberland

Dale Cumberland
1421 Sleepy Hollow
New Braunfels, TX 78130
dale.cumberland@yahoo.com
(830) 606-2367
August 11, 2015
Professional Sanitarian, Texas Department of State Health Services, # 3748

Office of the Chief Clerk, MC 105
TCEQ
P.O. Box 13087
Austin, Texas 78711-3087

Re: Request for Contested Hearing, Permit No. UR02827, URI's Kingsville Dome Mine Application for Renewal and Major Amendment for Class III Area Permit

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

I am Dale Cumberland. My mailing address is 1421 Sleepy Hollow Lane, New Braunfels, TX 78130. My day time telephone number is 830-606-2367.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal justiciable interest because I own the surface to 53.33 acres described as KT & I Co, Block 41, Lot E 53.33 AC 11-14 that is located within PAA3. In addition, I own a share of the minerals inside PAA3 - in 160 acres of PAA3, Lots 3-6, Section 48, Kleberg County, Texas. These mineral interests are filed in Vol. 435, page 775 (Trustee's deed) of the Kleberg County deed records.

I would be adversely affected by the proposed permit and major amendment. Allowing URI to have the proposed permit and major amendment will interfere with the use and enjoyment of my property and cause me personal financial harm.

This land has been in my family for more than 75 years, land that my father bought, cleared and farmed. After my parents passing, I acquired the surface of the 53.33 acres from my siblings and jointly inherited the minerals in the adjoining 160 acre tract. I grew up in a farm house immediately adjacent to the current mine field with my 11 brothers and sisters, drinking water produced by a windmill that was clean and pure. The water was used not only for drinking and bathing, but for the many farm animals that we had and for irrigating a sizable garden and orchards that we used to sustain our family. The water was precious in the arid area of South Texas, and we were admonished daily to not be wasteful of such a precious resource.

I can still remember when my father entered into negotiations with URI, when Bill McKnight assured my father that mining the uranium from the ground water would do no damage to the water. My father was told that only oxygen would be injected into the ground water, bringing up the uranium that rested in a stable bed located in the ground water below. My father was assured that the water would be returned to the way that it was before mining, and that there would be no

threat to the water which we all depended on for our very lives. It was only with these assurances that my father agreed to allow exploration and mining of uranium on his land.

It has now been over 30 years since these promises were made. The ground water was contaminated by not only uranium that was dissolved by the oxygen, but by other dangerous compounds as well. The water has not been restored as promised, and now URI seeks to amend their promises made to my father, family, neighbors and the State of Texas by allowing higher levels of dangerous mining products, including uranium, to remain in the ground water. They say that the ground water will be essentially the same as when they found it, but this is simply not true. Water that my family and neighbors depended on for their lives has been rendered unusable, and the risk of this damaged water spreading to neighboring areas is real.

It is my understanding that I own not only the surface of the land, but the rights to the ground water below it. URI has contaminated this water, rendering it unusable for domestic and agricultural use. This has significantly impacted the value of this land, and allowing it to remain in this state will cause me financial harm. Allowing URI to have the proposed permit and major amendment will interfere with the use and enjoyment of my property.

I only ask that the State of Texas require URI to do what it promised to do – to restore the water to its original condition. I am opposed to allowing URI to amend the Restoration Table, resulting in elevated concentrations of uranium and other possible harmful compounds in the water.

Sincerely,

Dale Cumberland

Brad Patterson

From: elizabeth cumberland <ecumberland60@gmail.com>
Sent: Monday, August 03, 2015 9:07 AM
To: Webmaster
Subject: problem with e-comment size
Attachments: 141121GoliadAquifersUoreRadiometricGradesAroundKVDsPA-3Area_01 (1).pptx

UR 84705

Dear Webmaster:

I am in the process of commenting (actually, requesting a hearing) on a permit and major amendment application for UR02827.

I have sent by certified mail a comment where I attached Attachment A which is relatively short. In my comment, I state that I will send Attachment B by e-comment. This morning I could not do that because your limit is 5MB and what I am trying to send is over 12 MB. It has colored graphs which will not work in black and white. The deadline for a comment is August 13, 2015.

I will attach the file here so that you can see my problem and perhaps you can forward it to the Chief Clerk, or make a suggestion.

Thank you for your help.

Elizabeth Cumberland
512-357-2897

REVIEWED
AUG 03 2015
By

H

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
2015 AUG -3 PM 2:45
CHIEF CLERKS OFFICE

KVD Data Review - A Work in Progress

A Word On Estimated Uranium Ore Radiometric Grades

EPA, Region 6
Dallas, Texas

José Eduardo Torres
Petroleum Engineer
Chemical Engineer

1

A WORD (OR TWO) ON ESTIMATED URANIUM RADIOMETRIC ORE GRADES IN THE GARCIA HILL AREA; KLEBERG COUNTY, TX:

In the past, Kleberg County citizens have inquired with EPA about the amount of uranium ore in the Goliad Aquifer in the Garcia Hill area, following the high uranium concentrations observed in the Garcia Hill community's ground water supply (see Figure 1).

More specifically, in recent days, Ms. Elizabeth Cumberland asked whether EPA had been able to establish how the ore grade in the area compares to the cut-off grade value of 0.13% U3O8 that operator Strathmore established for its Roca Honda mining site (see Table I). Ms. Cumberland provided the Agency with numerous area well logs in the wake of a complaint filed by Mr. Teo Saenz, which prompted the GW/UIC Section to take a close look at the GR readings in those logs.

This work is an effort by the Section to satisfy the citizens' inquiries and, in particular, Ms. Cumberland's question on uranium ore grade, all part of the efforts towards addressing Mr. Saenz's complaint. The map in Figure 2 highlights the wells (see arrows) that were selected for analysis based primarily on their location relative to the Garcia Hill community, and to the impacted W-24 and W-25 wells.

Table II lists the highest ore grade values, as %U3O8, that were estimated for given points in the formation in the selected 11 area wells, while Figure 3 compares those "point ore grade values" to the "cut-off values" selected by operators Strathmore and URI: 0.13% and 0.11%, respectively. The available Uranium concentrations for the area's Goliad water shown in Table II, and in Figures 4 and 5, are generally near or below the EPA standard of 30 µg/L for dissolved Uranium. These baseline Uranium concentrations show that the water in an aquifer with naturally occurring very low grade Uranium ore can be suitable for human consumption, as long as it remains undisturbed.

The Uranium concentration shown in Table III for the City of Kingsville PWS EP004 well compares reasonably well with the above concentrations, suggesting that ore grades in the city may generally be in the range of those illustrated in Table II. Figure 6 compares the stratigraphic columns for Garcia Hill wells and one City of Kingsville PWS well, and is submitted as validation for the above water quality comparison for the two areas.

Details on how the Table II illustrated Uranium ore grade values were estimated are provided below.

Figure 1

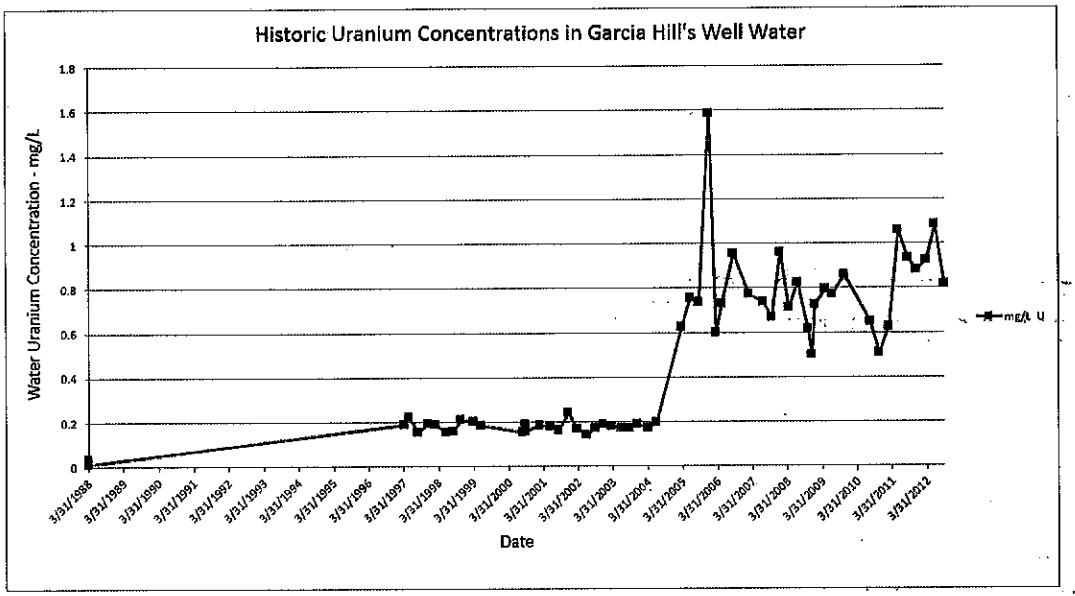


Table I

The economic evaluation of the Roca Honda uranium resource was prepared under the supervision of Stuart E. Collins of Roscoe Postle (USA) Ltd., Lakewood, Colorado. Mr. Collins is a Registered Professional Mining Engineer in the state of Colorado, and is a registered member of the Society for Mining and Metallurgy, and Exploration, and an independent and Qualified Person as defined in NI 43-101.

Summary of Roca Honda Mineral Resources as at August 9, 2011:
Measured and Indicated Resources:

Classification	Tons	Grade % U_3O_8	Lb U_3O_8
Measured	284,000	0.395	2,247,000
Indicated	1,793,000	0.405	14,536,000
Total M+I	**2,077,000**	**0.404**	**16,783,000**
Inferred Resource:			
Classification	**Tons**	**Grade % U_3O_8**	**Lb U_3O_8**
Inferred	1,448,000	0.411	11,894,000

Notes:

1. CIM definitions were followed for Mineral Resources.
2. The Qualified Person for this Mineral Resource estimate is Patti Nakai-Lajoie, P.Geo.
3. Mineral Resources are estimated using a cut-off grade of 0.13% U3O8. ←
4. A minimum mining thickness of six feet was used.
5. Numbers may not add due to rounding.

The modeling and estimation of the uranium resources were prepared under the supervision of Patti Nakai-Lajoie, P.Geo. and Principal Geologist, RPA. Ms. Nakai-Lajoie is a Professional Geoscientist in the Province of Ontario and an independent and Qualified Person as defined in NI 43-101. Ms. Nakai-Lajoie visited the Roca Honda Property on May 10-12, 2011 and is of the opinion that the data verification procedures support the geologic interpretations and confirm the quality of the database. It should be noted that mineral resources, which are not mineral reserves, do not have demonstrated economic viability.

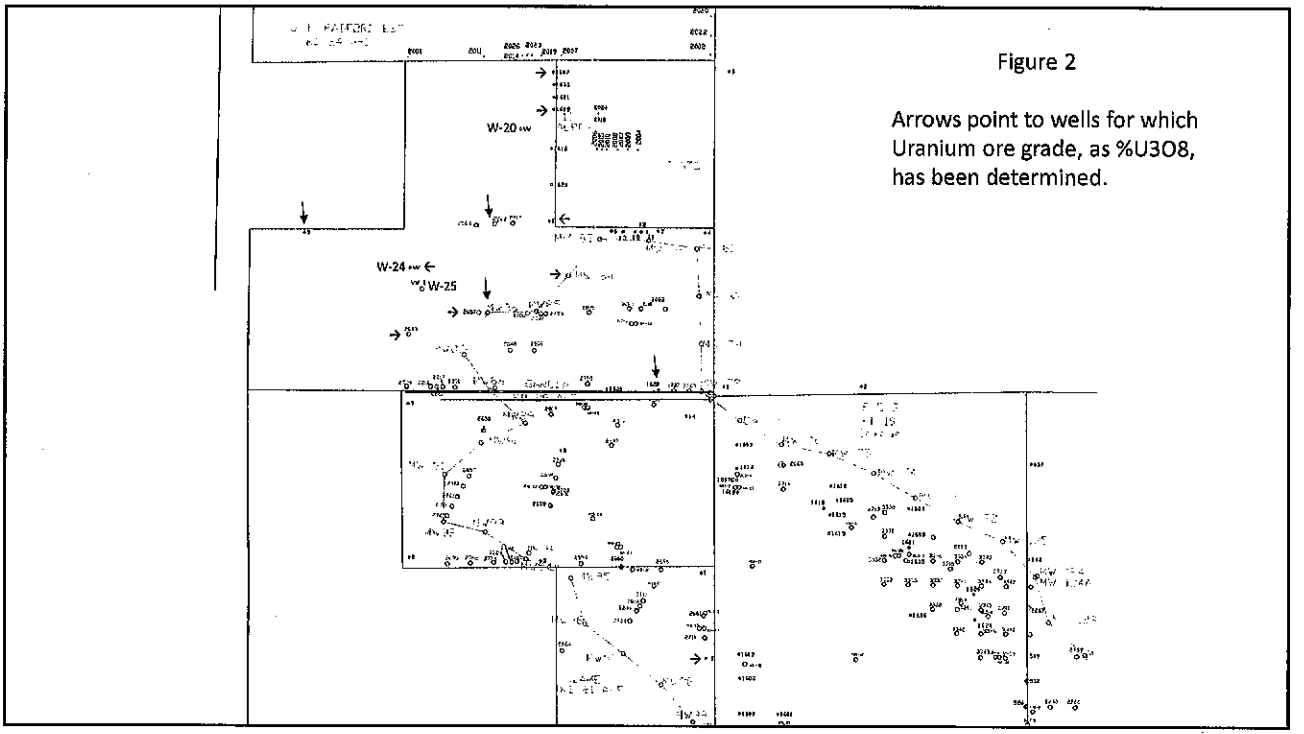


Figure 2

Arrows point to wells for which Uranium ore grade, as %U3O8, has been determined.

Table II.- Summary of Highest Uranium Ore Grade Values Estimated from GR Log Readings for the Selected Garcia Hill Area Wells

	GH W-24	Garcia 2699	Garcia 2657	MW-86	Garcia 2722	Garcia 5	Garcia 1	MW-84		Expl G1607	Expl G1619	Expl G1622
Ft From GH W-24 (approx.)	0	547	681	739	787	915	1207	1302	Ft From GH W-20 (approx.)	550	335	2500
"B" Sand Interval?	Yes 508 - 621	Yes 562 - 633	Yes 550 - 634	Yes 535 - 629	Yes 538 - 606	Yes 555 - 628	Yes 530 - 600	Yes 538 - 615				
"B" Sand Highst. Ore Grade Read (%eU3O8)	0.0030 @ 575.0	0.0062 @ 573.5	Essentially Flat GR Curve	0.0025 @ 564.5	0.0281 @ 554.5	Essentially Flat GR Curve	0.0071 @ 554.0	0.0076 @ 577.0	"B" Sand Highst. Ore Grade Read (%eU3O8)	0.0100 @ 553.5	0.0229 @ 572.0	0.1572 @ 585.5
"A" Sand Interval?	Yes 625 - 691	Yes 643 - 705	Yes 640 - 663	Yes 640 - 670	Yes 611 - 650	Yes 640 - 692	Yes 611 - 678	Yes 661 - 675				
"A" Sand Highst. Ore Grade Read (%eU3O8)	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve				
"AA" Sand Interval?	Yes 695 - 747	Yes 709 - 780	Yes 692 - 761	Yes 688 - 719	Yes 686 - 780	Yes 695 - 750	Yes 681 - 762	Yes 678 - 773				
"AA" Sand Highst. Ore Grade Read (%eU3O8)	Essentially Flat GR Curve	0.0035 @737.5	0.0055 @ 746.5	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	"AA" Sand Highst. Ore Grade Read (%eU3O8)	0.0438 @ 729.0	0.0071 @ 726.0	
Initial U mg/L	0.032 0.011	Drilled & Abandoned	Drilled & Abandoned	0.019	Drilled & Abandoned	Drilled & Abandoned	Drilled & Abandoned	0.031		Drilled & Abandoned	Drilled & Abandoned	PA-3 Producer 13222?

All Distances and Depths are approximate.

Figure 3

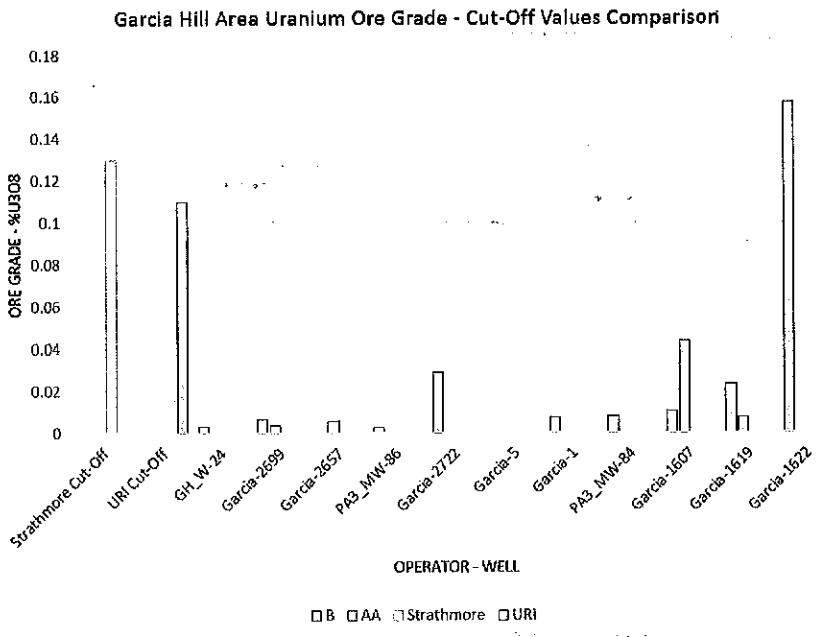


Figure 4 Handwritten PA-3 Water Uranium Concentrations for North Monitoring Wells, Near Garcia Hill

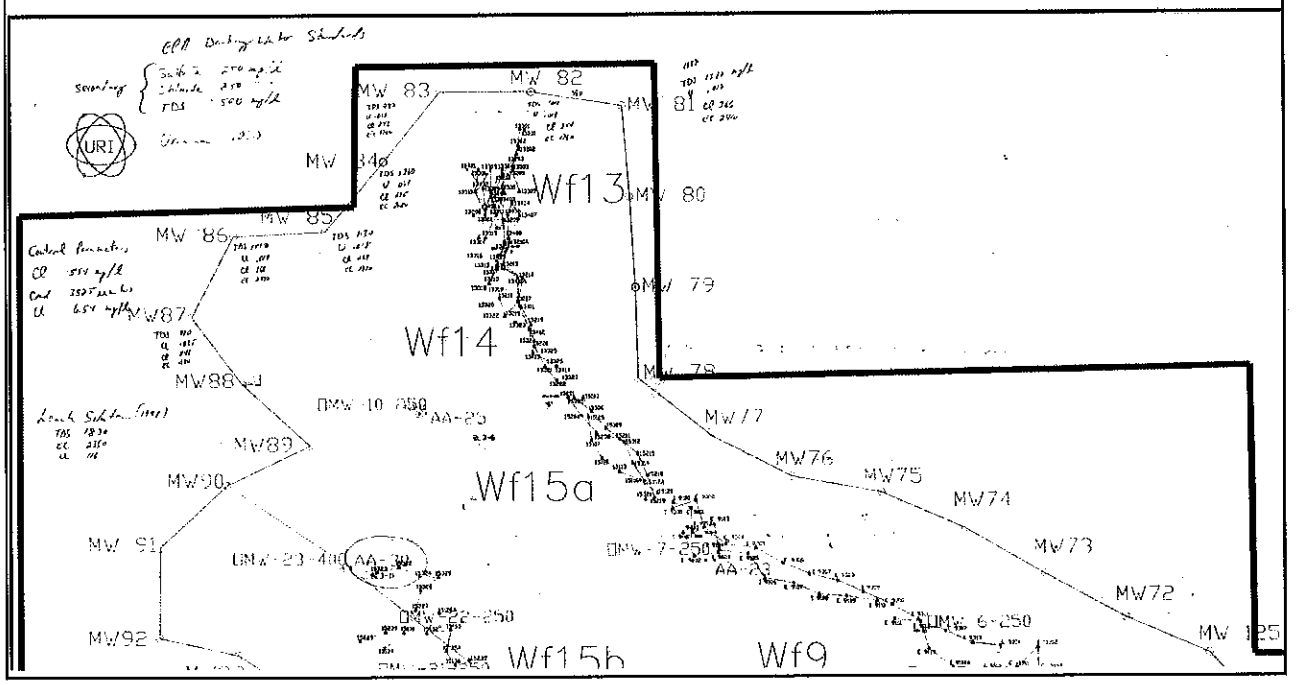
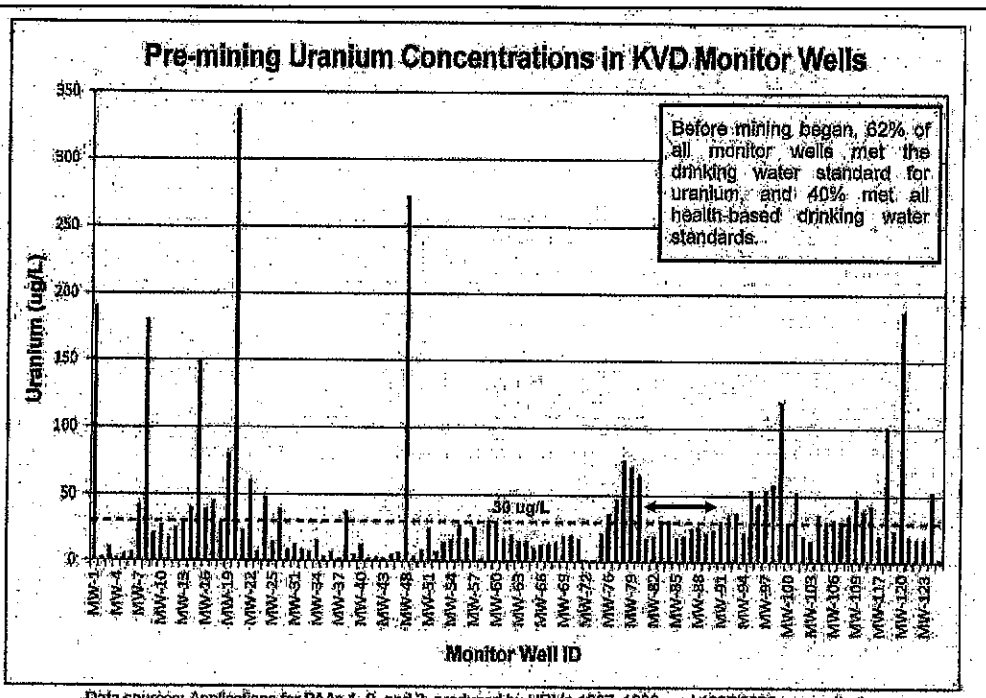


Figure 5

Uranium concentrations in water samples from the North Monitoring Wells (the closest to Garcia Hill and to this work's selected wells) stood at near or below the standard of 30 µg/L.



Data sources: Applications for PAAs 1, 2, and 3, produced by URI in 1987, 1989, and 1997/2002, respectively.

Table III

One Rare Analysis for Uranium for a City of Kingsville's Public Water Supply Well

Safe Drinking Water Information System (SDWIS)

Report generated on: 9/12/2012

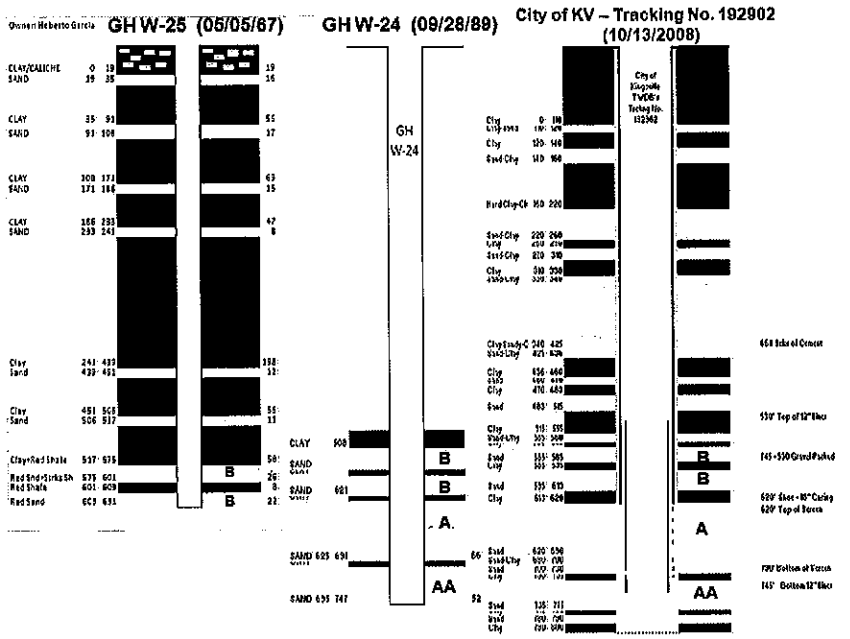
- Radionuclide Results Report: CITY OF KINGSVILLE PWSID TX1370001 for samples collected between 1/1/2000 and 9/12/2012

Report Description: Detailed Radionuclide result for a system by entry point and sample given a user defined date range and PWS ID.

CITY OF KINGSVILLE (TX1370001) - EP004 "GST" 1/1/2000 - 9/12/2012

TCEQ ID	LAB ID	TEST NAME	RESULT	UNIT OF ME	SAMPLE DATE	SYSTEM ID	CONT ID	POC I
1153870	AB54309	Gross Alpha, Incl. Radon & U	15.4	pCi/L	04/20/2011	1370001	4002	EP004
1153870	AB54309	Gross Beta Particle Activity	7.4	pCi/L	04/20/2011	1370001	4100	EP004
1153870	AB54309	Radium-226		Non-Detect	04/20/2011	1370001	4020	EP004
1153870	AB54309	Radium-228		Non-Detect	04/20/2011	1370001	4030	EP004
1153870	AB54309	Uranium-238 ←	2.7	pCi/L	04/20/2011	1370001	4009	EP004
1153870	AB54309	Uranium-234 ←	6.5	pCi/L	04/20/2011	1370001	4007	EP004
1153870	AB54309	Uranium-235 ←		Non-Detect	04/20/2011	1370001	4008	EP004
		Combined Uranium	8.0	µg/L ←				
		Gross Alpha, Excl. Radon & U	10.0	pCi/L				
		Combined Radium (-226 & -228)		**Non-Detect**				
0828826	AA51939	Gross Alpha, Incl. Radon & U	10.1	pCi/L	02/12/2008	1370001	4002	EP004
0828826	AA51939	Gross Beta Particle Activity	5.4	pCi/L	02/12/2008	1370001	4100	EP004
0828826	AA51939	Radium-226		Non-Detect	02/12/2008	1370001	4020	EP004
0828826	AA51939	Radium-228		Non-Detect	02/12/2008	1370001	4030	EP004
		Combined Radium (-226 & -228)		**Non-Detect**				
0525248	EP506258	Gross Beta Particle Activity	10.3	pCi/L	03/07/2005	1370001	4100	EP004
0525248	EP506258	Radium-226		Non-Detect	03/07/2005	1370001	4020	EP004
0525248	EP506258	Radium-228		Non-Detect	03/07/2005	1370001	4030	EP004
0525248	EP506258	Gross Alpha Particle Activity	11.9	pCi/L	03/07/2005	1370001	4109	EP004
	EP204782	Gross Beta Particle Activity	9.2	pCi/L	03/12/2002	1370001	4100	EP004
	EP204782	Radium-226		Non-Detect	03/12/2002	1370001	4020	EP004
	EP204782	Radium-228		Non-Detect	03/12/2002	1370001	4030	EP004
	EP204782	Gross Alpha Particle Activity	12.2	pCi/L	03/12/2002	1370001	4109	EP004

Figure 6 Stratigraphic Column/Completion Comparison for Garcia Hill W-24, W-25 and City of Kingsville PWS No. 7 Well



THE COMPUTATIONAL MODEL USED FOR ESTIMATING URANIUM ORE GRADE AS %U3O8

A SAMPLE COMPUTATION OF URANIUM ORE GRADE, USING THE BACKGROUND TO BACKGROUND METHOD, HAS BEEN IMPLEMENTED, AND THE RESULTS HAVE BEEN COMPARED AGAINST THE AVAILABLE RESULTS FROM ANOTHER COMMERCIAL COMPUTER PROGRAM FOR VALIDATION OF THE PROCEDURE USED IN THIS WORK. DETAILS ON THESE COMPUTATIONS ARE PRESENTED BELOW.

The numerical results for an assay by COMPUTER LOGGING INCORPORATED for the KVD area Adami No. 2 Well were faithfully duplicated by the computer routine used in this work, as can be seen in Tables IV and V. The curve in Figure 7 is the graphic representation of the digitized GR data, which was used as input.

The same computational scheme was used for all of the other assays, which were completed for the 11 selected KVD area wells. The map in Figure 1 identifies these wells and illustrates their location. These wells' GR Logs were digitized by taking readings every six inches across the selected depth interval, and tabulating them. The tabulated readings were later put in a graph for comparison with the recorded log curve as a quality assurance exercise.

Tables VI through XVIII show the input GR readings and the computed %U3O8 values. These results are for eligible "B" and "AA" Sands intervals when present in the selected wells. Figures 8 through 33 illustrate the recorded GR and digitized curves. Alternating with these curves are graphic comparisons of the %U3O8 values, computed across the selected depth interval, against the set cut-off ore grade values for mining, one of the main objectives of this work.

Comparison of the highest ore grade readings against the set cut-off values for mining was illustrated at the beginning of this discussion (Figure 3) to call attention to the natural correlation between very low Uranium ore grade and drinkable water.

Table IV

COMPUTER LOGGING INCORPORATED

URANIUM DATA ANALYSIS

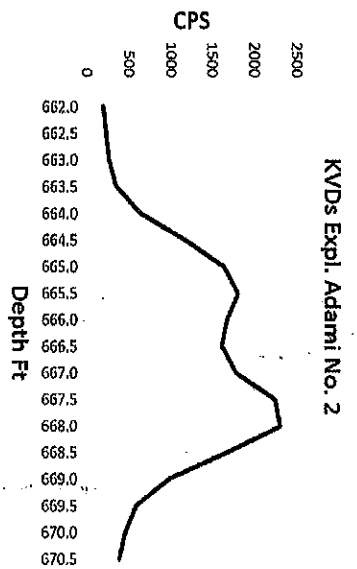
CLIENT: U.R.I.
HOLE NO: ADAMI#2
DATE: 12-07-87

K-FACTOR= .00000630 DEADTIME (MICROSEC.)= .00000025
CORRECTION FACTOR= 1.150

DEPTH (FT)	RAW CPS	CORRECTED CPS	GRADE %U3O8	CUT #1 .020	CUT #2 .050	CUT #3 .080	CUT #4 .100	%U3O8 HOLE SIZE AND WATER CORR. GRADE
662.0	194.	194.	.003					0.0028
662.5	223.	223.	.003					0.0033
663.0	266.	266.	.004					0.0039
663.5	353.	353.	.005					0.0052
664.0	638.	638.	.009					0.0093
664.5	1170.	1171.	.017					0.0171
665.0	1649.	1650.	.024	.024				0.0242
665.5	1809.	1810.	.026	.026				0.0265
666.0	1686.	1686.	.024	.024				0.0247
666.5	1618.	1619.	.023	.023				0.0237
667.0	1789.	1790.	.026	.026				0.0262
667.5	2255.	2257.	.033	.033				0.0330
668.0	2321.	2322.	.034	.034				0.0340
668.5	1692.	1692.	.025	.025				0.0248
669.0	999.	999.	.014					0.0146
669.5	603.	604.	.009					0.0088
670.0	467.	467.	.007					0.0068
670.5	397.	397.	.006					0.0058

CUTOFF NUMBER 1
NUMBER OF HALF-FOOT INTERVALS: 8
AVERAGE GRADE= .027
GRADE-THICKNESS PRODUCT= .107

Figure 7



KVD's Exploratory Adami No. 2 Well - Digitized GR Curve - From Table I

Table V

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method (Continues)

Given Data
Data Entered by Logger
Calculated Data

DATE:	
WELL NAME:	Adami No. 2
LOGGING ENGINEER:	
UNIT No.:	
PROBE No.:	
INTERVAL: Ft	0.5
BIT SIZE: In Inches	5.125
WATER IN HOLE? (Y/N)	y
WATER CORRECTION:	1.14861875
STEEL PIPE IN HOLE? (Y/N)	n
THICKNESS: in Inches	1
STEEL CORRECTION:	1
DEAD TIME:	2.50000E-07
K FACTOR:	6.30000E-06

GRADE= **0.01714317** %eU308
GRADE-THICKNESS= **0.14571697**

Interval Of Interest: 662.00 to 670.50

KVD's PA-3 Adami No. 2

ORE GRADE AND GRADE-THICKNESS CALCULATION (Concluded)
Background to Background Method

KVD's PA-3 Adami No. 2

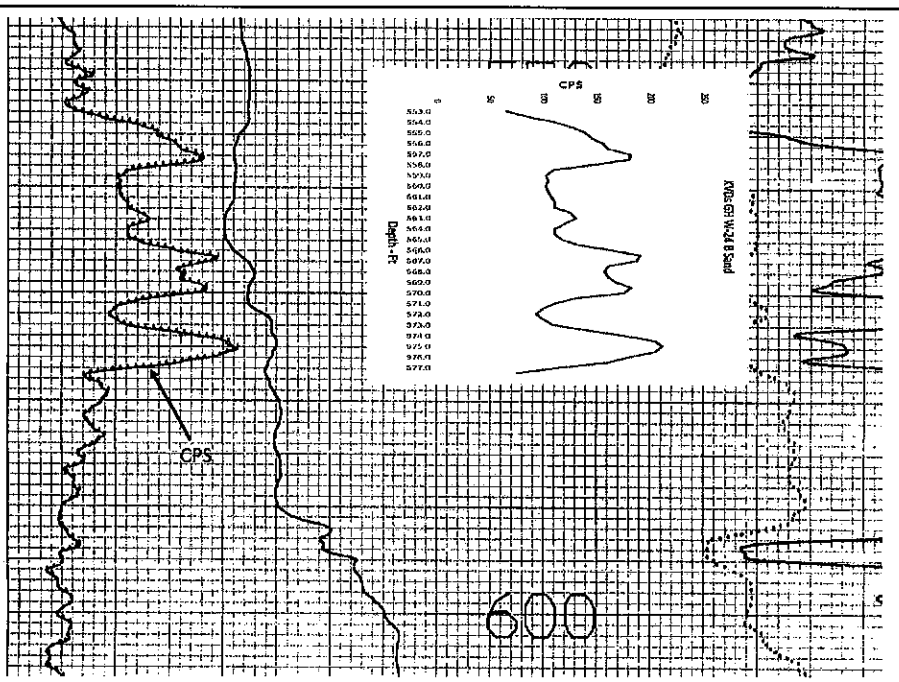
Table V

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%eU3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
662.00	194.00	194.01	0.0024	0.0028	0.0028
662.50	223.00	223.01	0.0028	0.0033	0.0033
663.00	266.00	266.02	0.0034	0.0039	0.0039
663.50	353.00	353.03	0.0044	0.0052	0.0052
664.00	638.00	638.10	0.0080	0.0093	0.0093
664.50	1170.00	1170.34	0.0147	0.0171	0.0171
665.00	1649.00	1649.68	0.0208	0.0242	0.0242
665.50	1809.00	1809.82	0.0228	0.0265	0.0265
666.00	1686.00	1686.71	0.0213	0.0247	0.0247
666.50	1618.00	1618.65	0.0204	0.0237	0.0237
667.00	1789.00	1789.80	0.0226	0.0262	0.0262
667.50	2255.00	2256.27	0.0284	0.0330	0.0330
668.00	2321.00	2322.35	0.0293	0.0340	0.0340
668.50	1692.00	1692.72	0.0213	0.0248	0.0248
669.00	999.00	999.25	0.0126	0.0146	0.0146
669.50	603.00	603.09	0.0076	0.0088	0.0088
670.00	467.00	467.05	0.0059	0.0068	0.0068
670.50	397.00	397.04	0.0050	0.0058	0.0058

The Assay for the Garcia Hill W-24 Water Supply Well, initially identified as 1989 Exploratory Well Garcia 1627, is shown in Figures 8 and 9, and in Table VI.

Figure 9 illustrates the contrast between the estimated ore grade values across the "B" Sand in the W-24 well and the 0.11 %U3O8 and 0.13 %U3O8 curves, set as the cut-off values for mining.

Figure 8



KVDs GH W-24 - "B" Sand - GR Log - Recorded & Digitized Curves Comparison

Table VI (Continues)

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Garcia Hill W-24 - B Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
553.00	65.00	65.00	0.0008	0.0009	0.0009
553.50	85.00	85.00	0.0010	0.0012	0.0012
554.00	110.00	110.00	0.0014	0.0016	0.0016
554.50	128.00	128.00	0.0016	0.0018	0.0018
555.00	139.00	139.00	0.0017	0.0020	0.0020
555.50	145.00	145.01	0.0018	0.0021	0.0021
556.00	156.00	156.01	0.0019	0.0022	0.0022
556.50	160.00	160.01	0.0020	0.0023	0.0023
557.00	181.00	181.01	0.0022	0.0026	0.0026
557.50	180.00	180.01	0.0022	0.0026	0.0026
558.00	145.00	145.01	0.0018	0.0021	0.0021
558.50	109.00	109.00	0.0013	0.0016	0.0016
559.00	102.00	102.00	0.0013	0.0015	0.0015
559.50	104.00	104.00	0.0013	0.0015	0.0015
560.00	102.00	102.00	0.0013	0.0015	0.0015
560.50	104.00	104.00	0.0013	0.0015	0.0015
561.00	107.00	107.00	0.0013	0.0015	0.0015
561.50	110.00	110.00	0.0014	0.0016	0.0016
562.00	110.00	110.00	0.0014	0.0016	0.0016
562.50	125.00	125.00	0.0015	0.0018	0.0018
563.00	130.00	130.00	0.0016	0.0019	0.0019
563.50	120.00	120.00	0.0015	0.0017	0.0017
564.00	110.00	110.00	0.0014	0.0016	0.0016
564.50	110.00	110.00	0.0014	0.0016	0.0016
565.00	117.00	117.00	0.0014	0.0017	0.0017

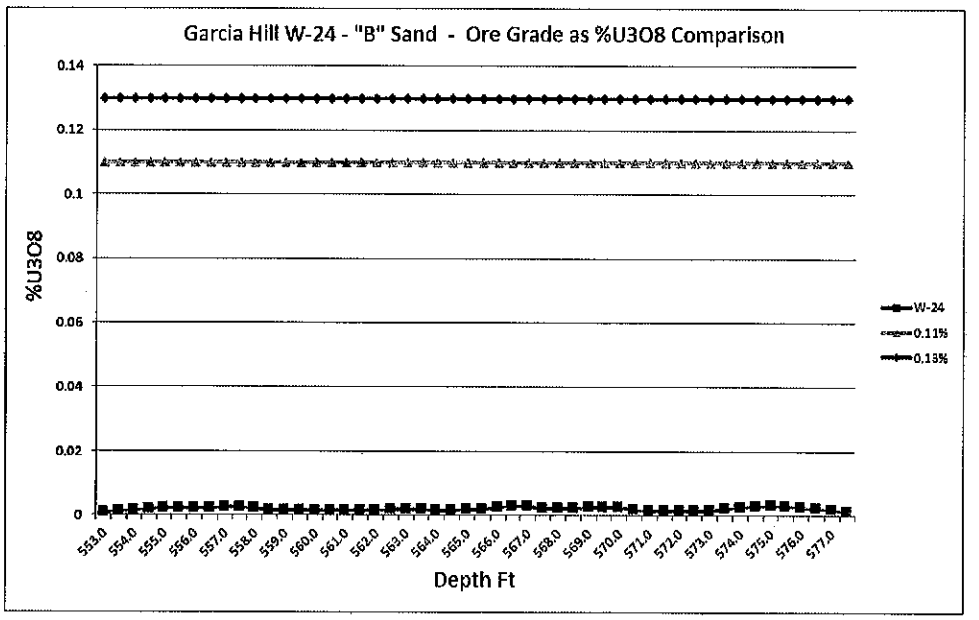
Table VI (Concluded)

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs W-24 - "B" Sand

565.00	117.00	117.00	0.0014	0.0017	0.0017
565.50	132.00	132.00	0.0016	0.0019	0.0019
566.00	164.00	164.01	0.0020	0.0024	0.0024
566.50	190.00	190.01	0.0023	0.0027	0.0027
567.00	187.00	187.01	0.0023	0.0027	0.0027
567.50	160.00	160.01	0.0020	0.0023	0.0023
568.00	157.00	157.01	0.0019	0.0023	0.0023
568.50	160.00	160.01	0.0020	0.0023	0.0023
569.00	168.00	168.01	0.0021	0.0024	0.0024
569.50	182.00	182.01	0.0022	0.0026	0.0026
570.00	175.00	175.01	0.0022	0.0025	0.0025
570.50	130.00	130.00	0.0016	0.0019	0.0019
571.00	110.00	110.00	0.0014	0.0016	0.0016
571.50	99.00	99.00	0.0012	0.0014	0.0014
572.00	93.00	93.00	0.0011	0.0013	0.0013
572.50	100.00	100.00	0.0012	0.0014	0.0014
573.00	109.00	109.00	0.0013	0.0016	0.0016
573.50	140.00	140.00	0.0017	0.0020	0.0020
574.00	175.00	175.01	0.0022	0.0025	0.0025
574.50	204.00	204.01	0.0025	0.0029	0.0029
575.00	211.00	211.01	0.0026	0.0030	0.0030
575.50	204.00	204.01	0.0025	0.0029	0.0029
576.00	180.00	180.01	0.0022	0.0026	0.0026
576.50	160.00	160.01	0.0020	0.0023	0.0023
577.00	115.00	115.00	0.0014	0.0017	0.0017
577.50	75.00	75.00	0.0009	0.0011	0.0011
AREA		6834.25			
577.50	DEPTH MAX				
553.00	DEPTH MIN				

Figure 9



The Assay for the Exploratory Garcia 2699 Well, "B" Sand, is shown in Figures 10 and 11, and in Table VII.

Figure 11 illustrates the spread between the estimated ore grade values across the "B" Sand in the Garcia 2699 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

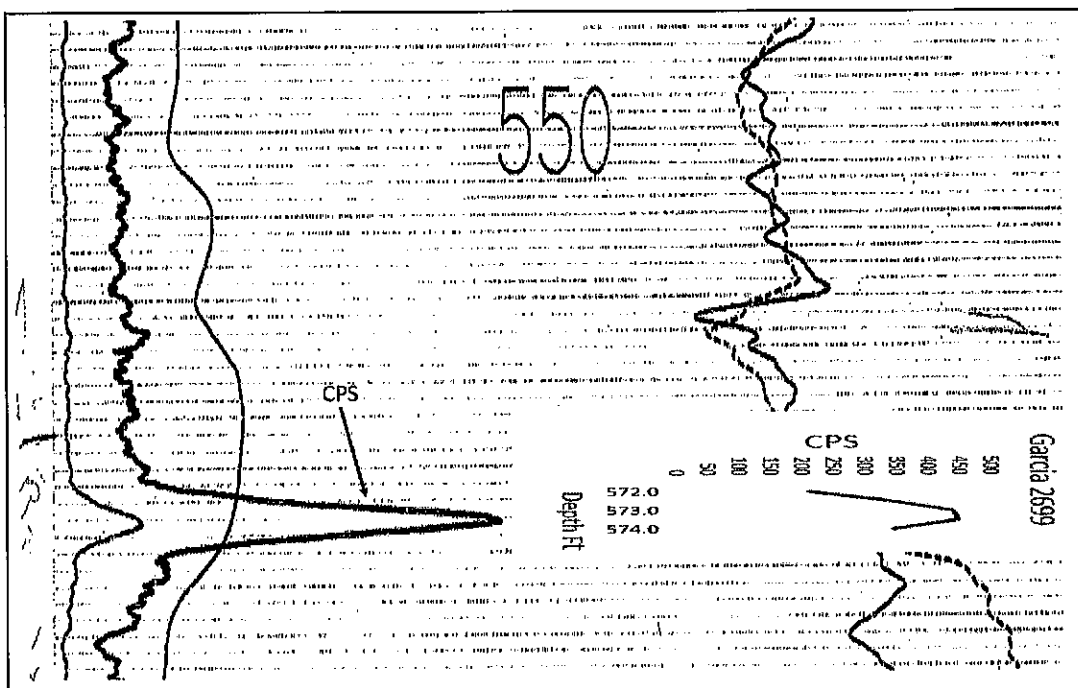


Figure 10

KVD's Exploratory Garcia 2699 – "B" Sand – Recorded & Digitized Curves Comparison

Table VII

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

Given Data
Data Entered by Logger
Calculated Data

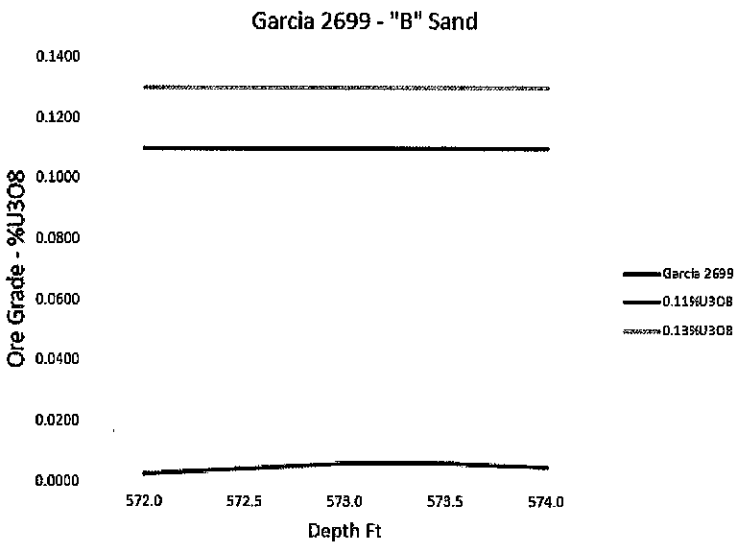
DATE:	12/27/1996
WELL NAME:	Garcia 2699
LOGGING ENGINEER:	
UNIT No.:	
PROBE No.:	
INTERVAL: Ft	0.5
BIT SIZE: In Inches	6.750
WATER IN HOLE? (Y/N)	y
WATER CORRECTION:	1.2080125
STEEL PIPE IN HOLE? (Y/N)	n
THICKNESS: In Inches	1
STEEL CORRECTION:	1
DEAD TIME:	2.30000E-07
K FACTOR:	5.73000E-06
KVDs Expl. Garcia 2699	

GRADE= 0.0062130 %eU3O8
GRADE-THICKNESS= 0.0124259

Interval Of Interest: 572.00 to 574.00

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR.	STEEL CASING CORRECTION
572.00	215.00	215.01	0.0025	0.0030	0.0030
572.50	340.00	340.03	0.0039	0.0047	0.0047
573.00	442.00	442.04	0.0051	0.0061	0.0061
573.50	450.00	450.05	0.0052	0.0062	0.0062
574.00	348.00	348.03	0.0040	0.0048	0.0048

Figure 11

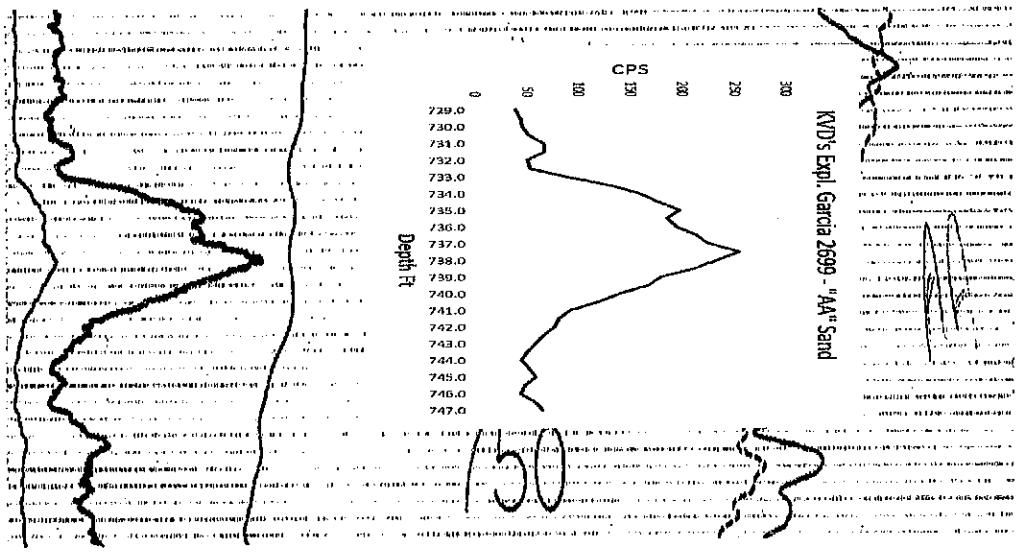


Ore Grade as %U3O8 Comparison

The Assay for the Exploratory Garcia 2699 Well, "AA" Sand, is shown in Figures 12 and 13, and in Table VIII.

Figure 13 illustrates the spread between the estimated ore grade values across the "AA" Sand in the Garcia 2699 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

Figure 12



KVD's Expl. Garcia 2699 – "AA" Sand – GR Recorded & Digitized Curves Comparison

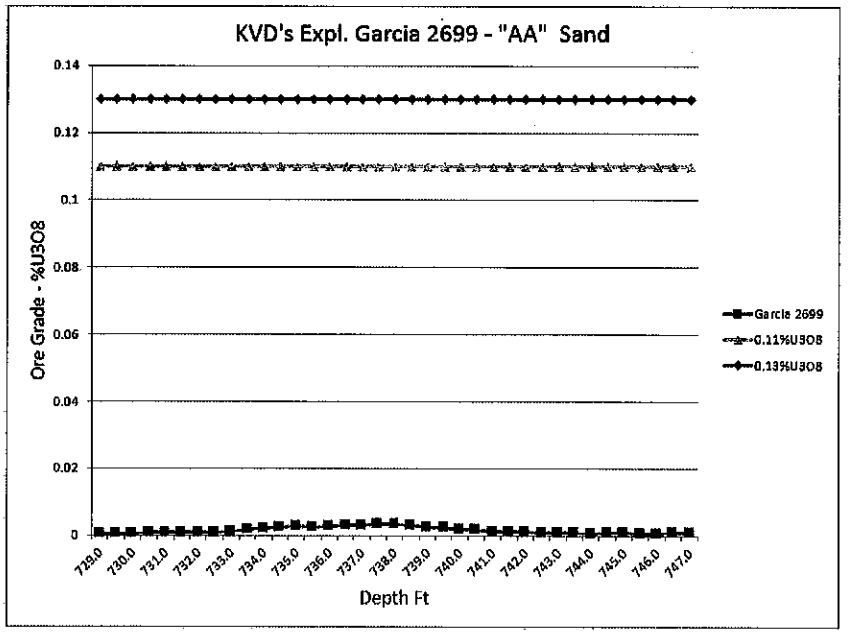
Table VIII

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Garcia 2699 - AA Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
729.00	35.00	39.00	0.0004	0.0005	0.0005
729.50	44.00	44.00	0.0005	0.0006	0.0006
730.00	46.00	46.00	0.0005	0.0006	0.0006
730.50	51.00	51.00	0.0006	0.0007	0.0007
731.00	66.00	66.00	0.0008	0.0009	0.0009
731.50	67.00	67.00	0.0008	0.0009	0.0009
732.00	50.00	50.00	0.0006	0.0007	0.0007
732.50	53.00	53.00	0.0006	0.0007	0.0007
733.00	88.00	88.00	0.0010	0.0012	0.0012
733.50	131.00	131.00	0.0015	0.0018	0.0018
734.00	159.00	159.01	0.0018	0.0022	0.0022
734.50	175.00	175.01	0.0020	0.0024	0.0024
735.00	197.00	197.01	0.0023	0.0027	0.0027
735.50	185.00	185.01	0.0021	0.0026	0.0026
736.00	154.00	154.01	0.0022	0.0027	0.0027
736.50	213.00	213.01	0.0024	0.0029	0.0029
737.00	224.00	224.01	0.0026	0.0031	0.0031
737.50	254.00	254.01	0.0029	0.0035	0.0035
738.00	233.00	233.01	0.0027	0.0032	0.0032
738.50	211.00	211.01	0.0024	0.0029	0.0029
739.00	179.00	179.01	0.0021	0.0025	0.0025
739.50	167.00	167.01	0.0019	0.0023	0.0023
740.00	139.00	139.00	0.0016	0.0019	0.0019
740.50	118.00	118.00	0.0014	0.0016	0.0016
741.00	90.00	90.00	0.0010	0.0012	0.0012
741.50	80.00	80.00	0.0009	0.0011	0.0011
742.00	76.00	76.00	0.0009	0.0011	0.0011
742.50	65.00	65.00	0.0007	0.0009	0.0009
743.00	58.00	58.00	0.0007	0.0008	0.0008
743.50	49.00	49.00	0.0006	0.0007	0.0007
744.00	44.00	44.00	0.0005	0.0006	0.0006
744.50	51.00	51.00	0.0006	0.0007	0.0007
745.00	58.00	58.00	0.0007	0.0008	0.0008
745.50	47.00	47.00	0.0005	0.0007	0.0007
746.00	43.00	43.00	0.0005	0.0006	0.0006
746.50	57.00	57.00	0.0007	0.0008	0.0008
747.00	64.00	64.00	0.0007	0.0009	0.0009

Figure 13

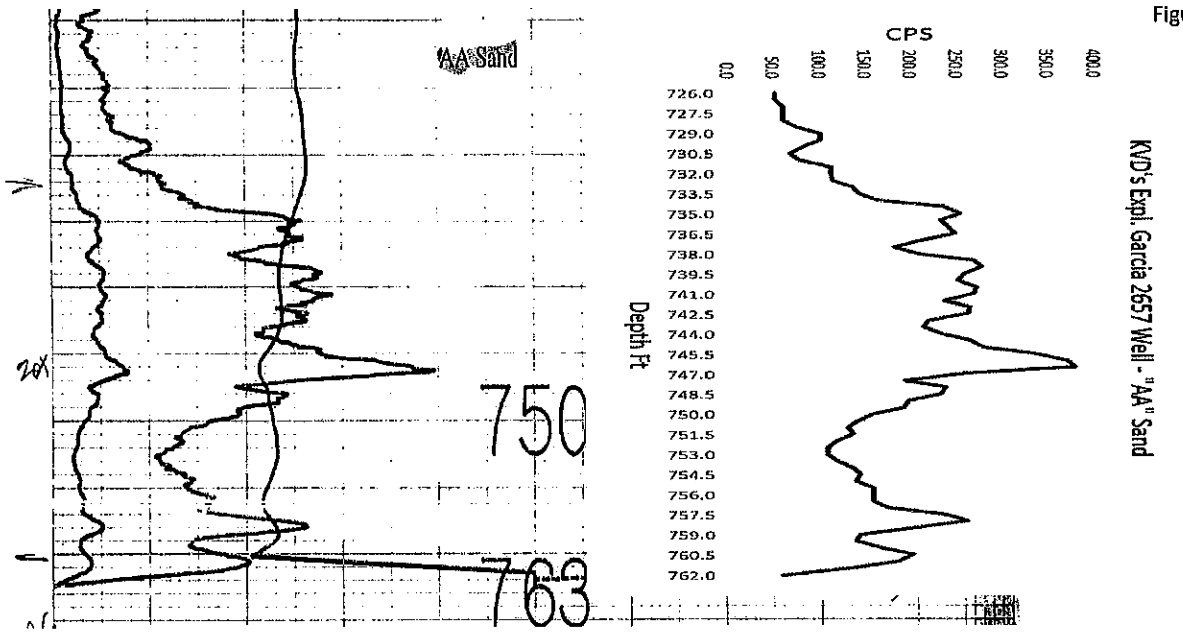


Ore Grade as %U3O8 Comparison

The Assay for the Exploratory Garcia 2657 Well, "AA" Sand, is shown in Figures 14 and 15, and in Table IX.

Figure 15 illustrates the spread between the estimated ore grade values across the "AA" Sand in the Garcia 2657 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

Figure 14



KVD's Expl. Garcia 2657 – "AA" Sand – Recorded & Digitized GR Curves Comparison

Table IX
(Continues)

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Garcia 2647 - AA Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	9U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
726.00	53.00	53.00	0.0007	0.0008	0.0008
726.50	54.00	54.00	0.0007	0.0008	0.0008
727.00	62.00	62.00	0.0008	0.0009	0.0009
727.50	62.00	62.00	0.0008	0.0009	0.0009
728.00	62.00	62.00	0.0008	0.0009	0.0009
728.50	75.00	75.00	0.0009	0.0011	0.0011
729.00	102.00	102.00	0.0013	0.0015	0.0015
729.50	102.00	102.00	0.0013	0.0015	0.0015
730.00	85.00	85.00	0.0010	0.0012	0.0012
730.50	70.00	70.00	0.0009	0.0010	0.0010
731.00	80.00	80.00	0.0010	0.0012	0.0012
731.50	115.00	115.00	0.0014	0.0017	0.0017
732.00	115.00	115.00	0.0014	0.0017	0.0017
732.50	116.00	116.00	0.0014	0.0017	0.0017
733.00	138.00	138.00	0.0017	0.0020	0.0020
733.50	145.00	145.01	0.0018	0.0021	0.0021
734.00	165.00	165.01	0.0020	0.0024	0.0024
734.50	237.00	237.01	0.0029	0.0034	0.0034
735.00	255.00	255.02	0.0031	0.0037	0.0037
735.50	233.00	233.01	0.0029	0.0034	0.0034
736.00	243.00	243.01	0.0030	0.0035	0.0035
736.50	250.00	250.02	0.0031	0.0036	0.0036
737.00	212.00	212.01	0.0026	0.0031	0.0031
737.50	183.00	183.01	0.0023	0.0026	0.0026
738.00	210.00	210.01	0.0026	0.0030	0.0030
738.50	270.00	270.02	0.0033	0.0039	0.0039
739.00	278.00	278.02	0.0034	0.0040	0.0040
739.50	260.00	260.02	0.0032	0.0037	0.0037
740.00	253.00	253.02	0.0031	0.0036	0.0036
740.50	273.00	273.02	0.0034	0.0039	0.0039
741.00	270.00	270.02	0.0033	0.0039	0.0039
741.50	238.00	238.01	0.0029	0.0034	0.0034
742.00	265.00	265.02	0.0033	0.0038	0.0038
742.50	264.00	264.02	0.0033	0.0038	0.0038
743.00	220.00	220.01	0.0027	0.0032	0.0032
743.50	215.00	215.01	0.0027	0.0031	0.0031
744.00	235.00	235.01	0.0029	0.0034	0.0034

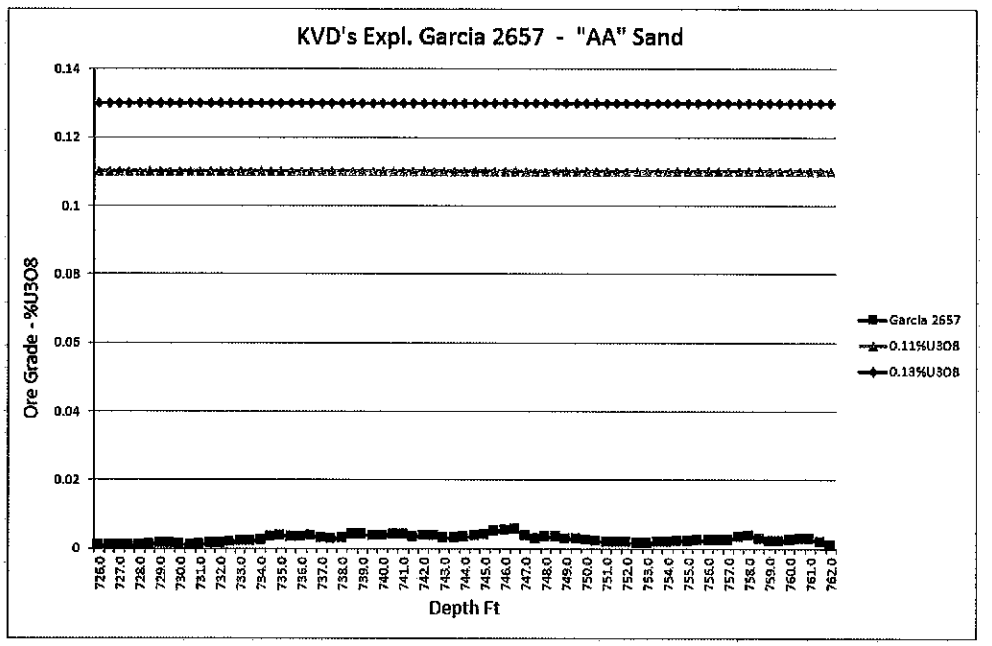
Table IX
(Concluded)

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVD's Expl. Garcia 2657

744.00	235.00	235.01	0.0029	0.0034	0.0034
744.50	265.00	265.02	0.0033	0.0038	0.0038
745.00	280.00	280.02	0.0035	0.0040	0.0040
745.50	335.00	335.03	0.0041	0.0048	0.0048
746.00	372.00	372.03	0.0046	0.0054	0.0054
746.50	380.00	380.04	0.0047	0.0055	0.0055
747.00	260.00	260.02	0.0032	0.0037	0.0037
747.50	195.00	195.01	0.0024	0.0028	0.0028
748.00	240.00	240.01	0.0030	0.0035	0.0035
748.50	234.00	234.01	0.0029	0.0034	0.0034
749.00	198.00	198.01	0.0024	0.0029	0.0029
749.50	193.00	193.01	0.0024	0.0028	0.0028
750.00	160.00	160.01	0.0020	0.0023	0.0023
750.50	142.00	142.01	0.0018	0.0020	0.0020
751.00	132.00	132.00	0.0016	0.0019	0.0019
751.50	137.00	137.00	0.0017	0.0020	0.0020
752.00	120.00	120.00	0.0015	0.0017	0.0017
752.50	110.00	110.00	0.0014	0.0016	0.0016
753.00	110.00	110.00	0.0014	0.0016	0.0016
753.50	120.00	120.00	0.0015	0.0017	0.0017
754.00	137.00	137.00	0.0017	0.0020	0.0020
754.50	145.00	145.01	0.0018	0.0021	0.0021
755.00	140.00	140.00	0.0017	0.0020	0.0020
755.50	160.00	160.01	0.0020	0.0023	0.0023
756.00	160.00	160.01	0.0020	0.0023	0.0023
756.50	160.00	160.01	0.0020	0.0023	0.0023
757.00	175.00	175.01	0.0022	0.0025	0.0025
757.50	240.00	240.01	0.0030	0.0035	0.0035
758.00	262.00	262.02	0.0032	0.0038	0.0038
758.50	200.00	200.01	0.0025	0.0029	0.0029
759.00	145.00	145.01	0.0018	0.0021	0.0021
759.50	140.00	140.00	0.0017	0.0020	0.0020
760.00	170.00	170.01	0.0021	0.0024	0.0024
760.50	203.00	203.01	0.0025	0.0029	0.0029
761.00	185.00	185.01	0.0023	0.0027	0.0027
761.50	135.00	135.00	0.0017	0.0019	0.0019
762.00	60.00	60.00	0.0007	0.0009	0.0009

Figure 15



Ore Grade as %U3O8 Comparison

The Assay for KVD's PA-3 MW-86, "B" Sand, is shown in Figures 16 and 17, and in Table X.

Figure 17 illustrates the spread between the estimated ore grade values across the "B" Sand in the MW-86 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

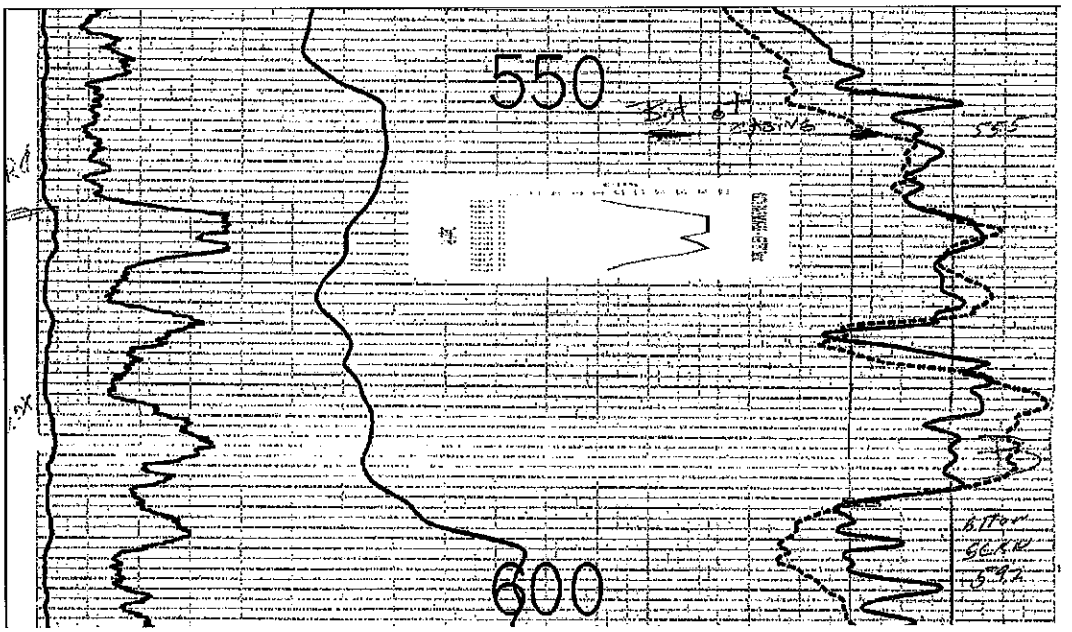


Figure 16

KVD's PA-3 MW86 – "B" Sand – GR Recorded & Digitized Curves Comparison

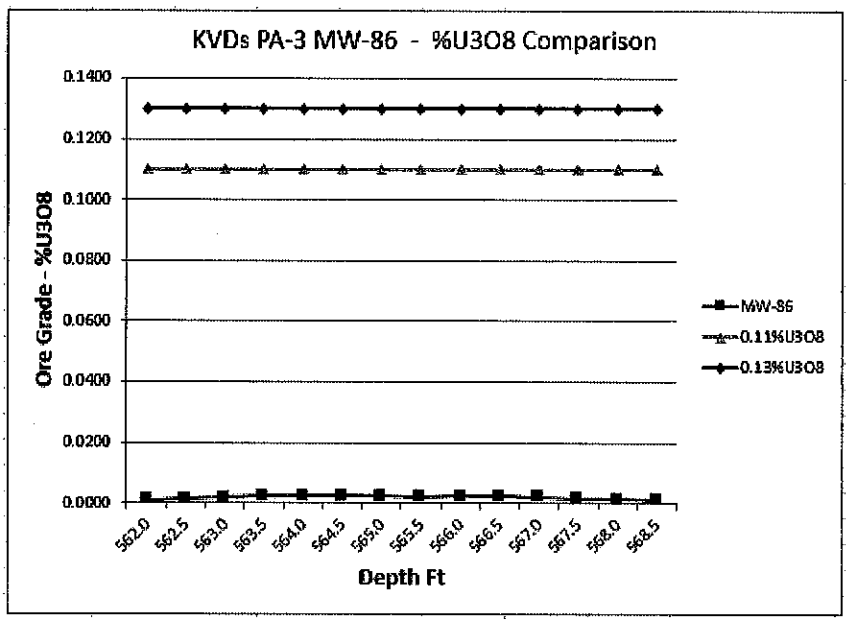
Table X

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs PA-3 MW-86

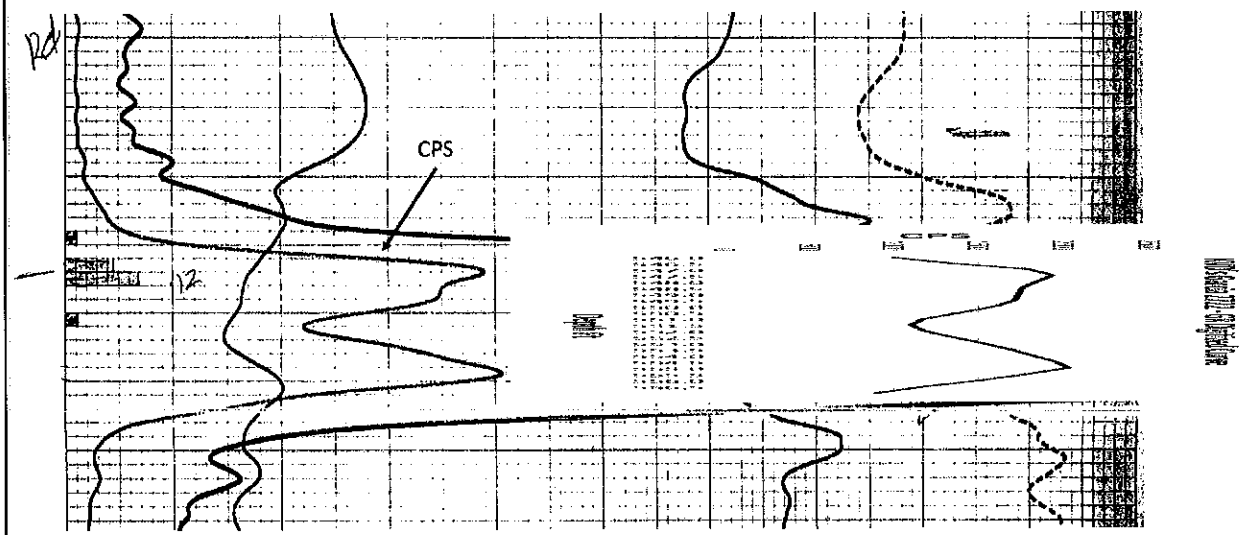
DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
562.00	85.00	85.00	0.0010	0.0011	0.0011
562.50	110.00	110.00	0.0013	0.0015	0.0015
563.00	150.00	150.01	0.0017	0.0020	0.0020
563.50	185.00	185.01	0.0021	0.0025	0.0025
564.00	185.00	185.01	0.0021	0.0025	0.0025
564.50	185.00	185.01	0.0021	0.0025	0.0025
565.00	185.00	185.01	0.0021	0.0025	0.0025
565.50	160.00	160.01	0.0018	0.0021	0.0021
566.00	175.00	175.01	0.0020	0.0023	0.0023
566.50	185.00	185.01	0.0021	0.0025	0.0025
567.00	165.00	165.01	0.0019	0.0022	0.0022
567.50	130.00	130.00	0.0015	0.00174	0.0017
568.00	105.00	105.00	0.0012	0.0014	0.0014
568.50	90.00	90.00	0.0010	0.0012	0.0012

Figure 17



The Assay for KVD's Exploratory Garcia 2722, "B" Sand, is shown in Figures 18 and 19, and in Table XI.

Figure 19 illustrates the spread between the estimated ore grade values across the "B" Sand in the Garcia 2722 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.



KVD's Exploratory Garcia 2722 Well - "B" Sand – GR Recorded & Digitized Curves Comparison

Figure 18

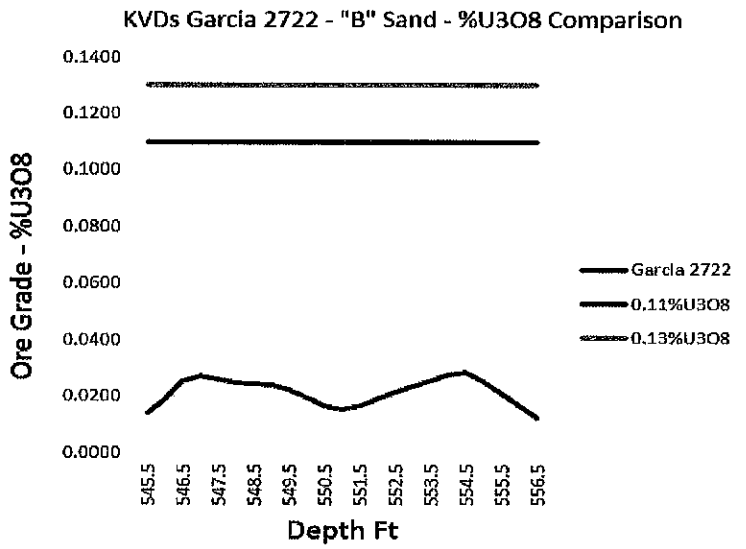
Table XI

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Garcia 2722 - B Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
545.50	1003.33	1003.58	0.0121	0.0141	0.0141
546.00	1353.33	1353.78	0.0163	0.0190	0.0190
546.50	1796.67	1797.46	0.0216	0.0253	0.0253
547.00	1943.33	1944.26	0.0234	0.0273	0.0273
547.50	1856.67	1857.51	0.0224	0.0261	0.0261
548.00	1763.33	1764.10	0.0212	0.0248	0.0248
548.50	1743.33	1744.08	0.0210	0.0245	0.0245
549.00	1716.67	1717.39	0.0207	0.0241	0.0241
549.50	1606.67	1607.30	0.0194	0.0226	0.0226
550.00	1393.33	1393.81	0.0168	0.0196	0.0196
550.50	1190.00	1190.35	0.0143	0.0167	0.0167
551.00	1106.67	1106.97	0.0133	0.0156	0.0156
551.50	1190.00	1190.35	0.0143	0.0167	0.0167
552.00	1353.33	1353.78	0.0163	0.0190	0.0190
552.50	1536.67	1537.25	0.0185	0.0216	0.0216
553.00	1690.00	1690.70	0.0204	0.0238	0.0238
553.50	1823.33	1824.15	0.0220	0.0256	0.0256
554.00	1960.00	1960.94	0.0236	0.0276	0.0276
554.50	2033.33	2034.35	0.0245	0.0286	0.0286
555.00	1803.33	1804.13	0.0217	0.0253	0.0253
555.50	1506.67	1507.22	0.0181	0.0212	0.0212
556.00	1180.00	1180.34	0.0142	0.0166	0.0166
556.50	900.00	900.20	0.0108	0.0126	0.0126

Figure 19



The Assay for KVD's Exploratory Garcia 1, "B" Sand, is shown in Figures 20 and 21, and in Table XII.

Figure 21 illustrates the spread between the estimated ore grade values across the "B" Sand in the Garcia 1 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

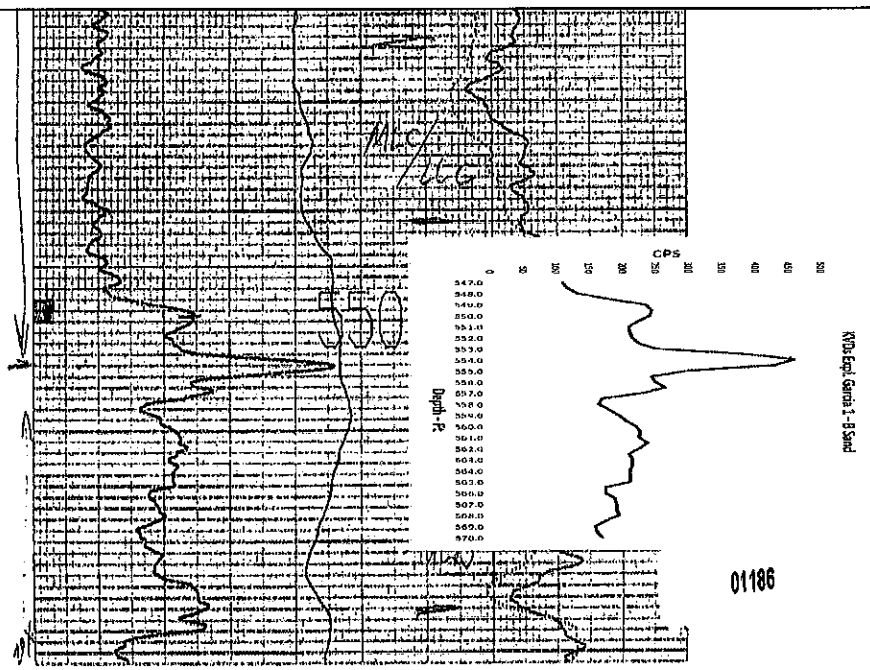


Figure 20

KVD's ExplG1 – "B" Sand - GR Log - Recorded & Digitized Curves Comparison

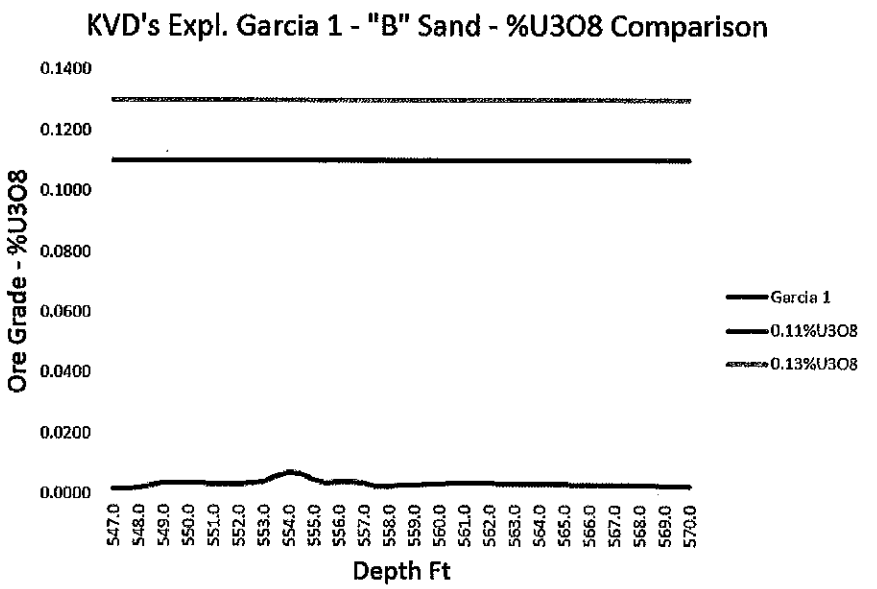
Table XII

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Expl. Garcia 1

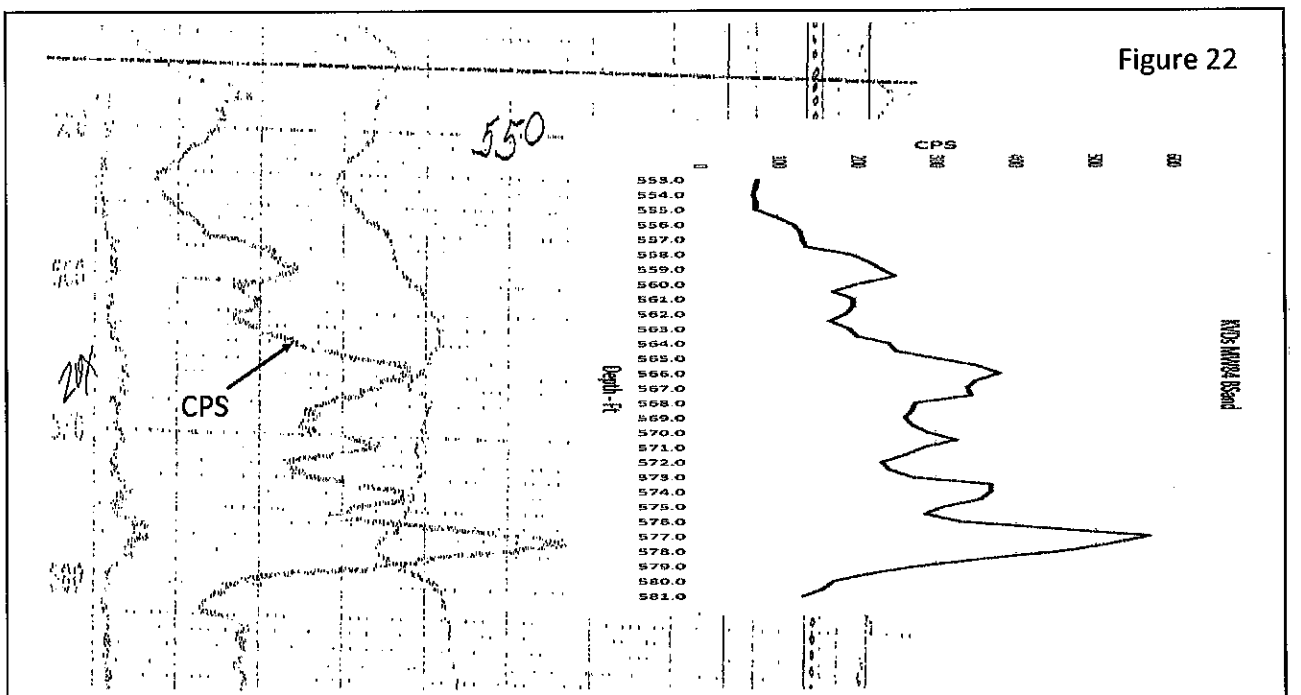
DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
547.00	110.00	110.00	0.0015	0.0017	0.0017
547.50	117.00	117.00	0.0016	0.0018	0.0018
548.00	132.00	132.00	0.0018	0.0020	0.0020
548.50	180.00	180.01	0.0024	0.0028	0.0028
549.00	235.00	235.01	0.0031	0.0036	0.0036
549.50	245.00	245.01	0.0033	0.0038	0.0038
550.00	242.00	242.01	0.0032	0.0038	0.0038
550.50	225.00	225.01	0.0030	0.0035	0.0035
551.00	210.00	210.01	0.0028	0.0033	0.0033
551.50	212.00	212.01	0.0028	0.0033	0.0033
552.00	215.00	215.01	0.0029	0.0033	0.0033
552.50	225.00	225.01	0.0030	0.0035	0.0035
553.00	250.00	250.01	0.0033	0.0039	0.0039
553.50	390.00	390.08	0.0052	0.0061	0.0061
554.00	460.00	460.05	0.0061	0.0071	0.0071
554.50	430.00	430.04	0.0057	0.0067	0.0067
555.00	300.00	300.02	0.0040	0.0047	0.0047
555.50	245.00	245.01	0.0033	0.0038	0.0038
556.00	250.00	250.01	0.0033	0.0039	0.0039
556.50	265.00	265.02	0.0035	0.0041	0.0041
557.00	230.00	230.01	0.0031	0.0036	0.0036
557.50	170.00	170.01	0.0023	0.0026	0.0026
558.00	165.00	165.01	0.0022	0.0026	0.0026
558.50	180.00	180.01	0.0024	0.0028	0.0028
559.00	195.00	195.01	0.0026	0.0030	0.0030
559.50	205.00	205.01	0.0027	0.0032	0.0032
560.00	220.00	220.01	0.0029	0.0034	0.0034
560.50	227.00	227.01	0.0030	0.0035	0.0035
561.00	225.00	225.01	0.0030	0.0035	0.0035
561.50	238.00	238.01	0.0032	0.0037	0.0037
562.00	225.00	225.01	0.0030	0.0035	0.0035
562.50	210.00	210.01	0.0028	0.0033	0.0033
563.00	215.00	215.01	0.0029	0.0033	0.0033
563.50	215.00	215.01	0.0029	0.0033	0.0033
564.00	212.00	212.01	0.0028	0.0033	0.0033
564.50	212.00	212.01	0.0028	0.0033	0.0033
565.00	212.00	212.01	0.0028	0.0033	0.0033
565.50	175.00	175.01	0.0023	0.0027	0.0027
566.00	175.00	175.01	0.0023	0.0027	0.0027
566.50	188.00	188.01	0.0025	0.0029	0.0029
567.00	191.00	191.01	0.0026	0.0030	0.0030
567.50	191.00	191.01	0.0026	0.0030	0.0030
568.00	195.00	195.01	0.0026	0.0030	0.0030
568.50	175.00	175.01	0.0023	0.0027	0.0027
569.00	159.00	159.01	0.0021	0.0025	0.0025
569.50	162.00	162.01	0.0022	0.0025	0.0025
570.00	170.00	170.01	0.0023	0.0026	0.0026

Figure 21



The Assay for KVD's PA-3 MW84, "B" Sand, is shown in Figures 22 and 23, and in Table XIII.

Figure 23 illustrates the spread between the estimated ore grade values across the "B" Sand in the PA-3 MW84 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.



KVD PA-3's MW84 – "B" Sand - GR Log - Recorded & Digitized Curves Comparison

Table XIII (Continues)

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs PA-3 MW-84

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
553.00	75.00	75.00	0.0008	0.0010	0.0010
553.50	73.00	73.00	0.0008	0.0010	0.0010
554.00	69.00	69.00	0.0007	0.0009	0.0009
554.50	73.00	73.00	0.0008	0.0010	0.0010
555.00	73.00	73.00	0.0008	0.0010	0.0010
555.50	100.00	100.00	0.0011	0.0013	0.0013
556.00	120.00	120.00	0.0013	0.0016	0.0016
556.50	128.00	128.00	0.0014	0.0017	0.0017
557.00	130.00	130.00	0.0014	0.0017	0.0017
557.50	135.00	135.00	0.0014	0.0018	0.0018
558.00	190.00	190.01	0.0020	0.0025	0.0025
558.50	215.00	215.01	0.0023	0.0029	0.0029
559.00	230.00	230.01	0.0025	0.0031	0.0031
559.50	250.00	250.02	0.0027	0.0033	0.0033
560.00	200.00	200.01	0.0021	0.0027	0.0027
560.50	170.00	170.01	0.0018	0.0023	0.0023
561.00	195.00	195.01	0.0021	0.0026	0.0026
561.50	195.00	195.01	0.0021	0.0026	0.0026
562.00	185.00	185.01	0.0020	0.0025	0.0025
562.50	165.00	165.01	0.0018	0.0022	0.0022
563.00	190.00	190.01	0.0020	0.0025	0.0025
563.50	200.00	200.01	0.0021	0.0027	0.0027
564.00	240.00	240.02	0.0026	0.0032	0.0032
564.50	250.00	250.02	0.0027	0.0033	0.0033
565.00	300.00	300.02	0.0032	0.0040	0.0040
565.50	350.00	350.03	0.0037	0.0047	0.0047
566.00	390.00	390.04	0.0041	0.0051	0.0051

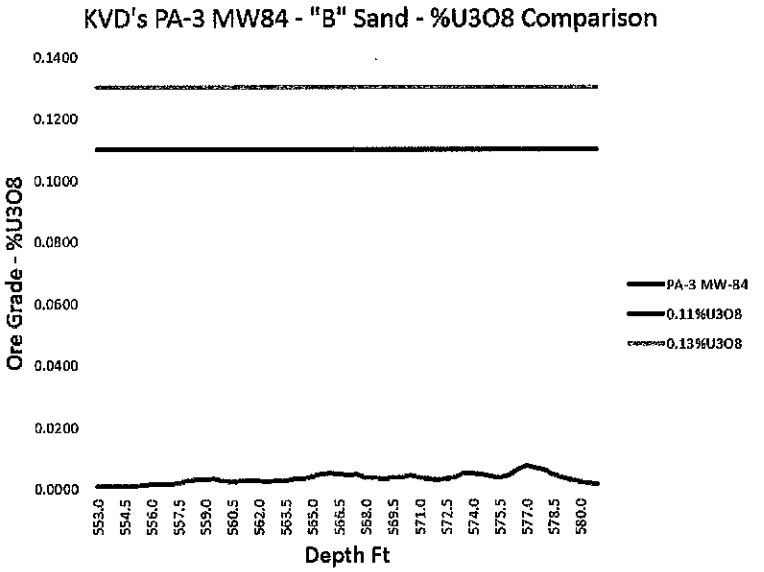
Table XIII (Concluded)

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVD's PA-3 MW84

566.50	350.00	350.03	0.0037	0.0047	0.0047
567.00	340.00	340.03	0.0036	0.0045	0.0045
567.50	345.00	345.03	0.0037	0.0046	0.0046
568.00	275.00	275.02	0.0029	0.0037	0.0037
568.50	270.00	270.02	0.0029	0.0036	0.0036
569.00	260.00	260.02	0.0028	0.0035	0.0035
569.50	270.00	270.02	0.0029	0.0036	0.0036
570.00	290.00	290.02	0.0031	0.0039	0.0039
570.50	325.00	325.03	0.0035	0.0043	0.0043
571.00	285.00	285.02	0.0030	0.0038	0.0038
571.50	260.00	260.02	0.0028	0.0035	0.0035
572.00	230.00	230.01	0.0025	0.0031	0.0031
572.50	240.00	240.02	0.0026	0.0032	0.0032
573.00	270.00	270.02	0.0029	0.0036	0.0036
573.50	370.00	370.04	0.0040	0.0049	0.0049
574.00	370.00	370.04	0.0040	0.0049	0.0049
574.50	355.00	355.03	0.0038	0.0047	0.0047
575.00	310.00	310.03	0.0033	0.0041	0.0041
575.50	285.00	285.02	0.0030	0.0038	0.0038
576.00	330.00	330.03	0.0035	0.0044	0.0044
576.50	450.00	450.05	0.0048	0.0060	0.0060
577.00	570.00	570.09	0.0061	0.0076	0.0076
577.50	520.00	520.07	0.0056	0.0069	0.0069
578.00	460.00	460.06	0.0049	0.0061	0.0061
578.50	365.00	365.04	0.0039	0.0049	0.0049
579.00	275.00	275.02	0.0029	0.0037	0.0037
579.50	215.00	215.01	0.0023	0.0029	0.0029
580.00	170.00	170.01	0.0018	0.0023	0.0023
580.50	155.00	155.01	0.0017	0.0021	0.0021
581.00	130.00	130.00	0.0014	0.0017	0.0017

Figure 23



The Assay for KVD's Exploratory Garcia 1607, "B" Sand, is shown in Figures 24 and 25, and in Table XIV.

Figure 25 illustrates the spread between the estimated ore grade values across the "B" Sand in the Garcia 1607 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

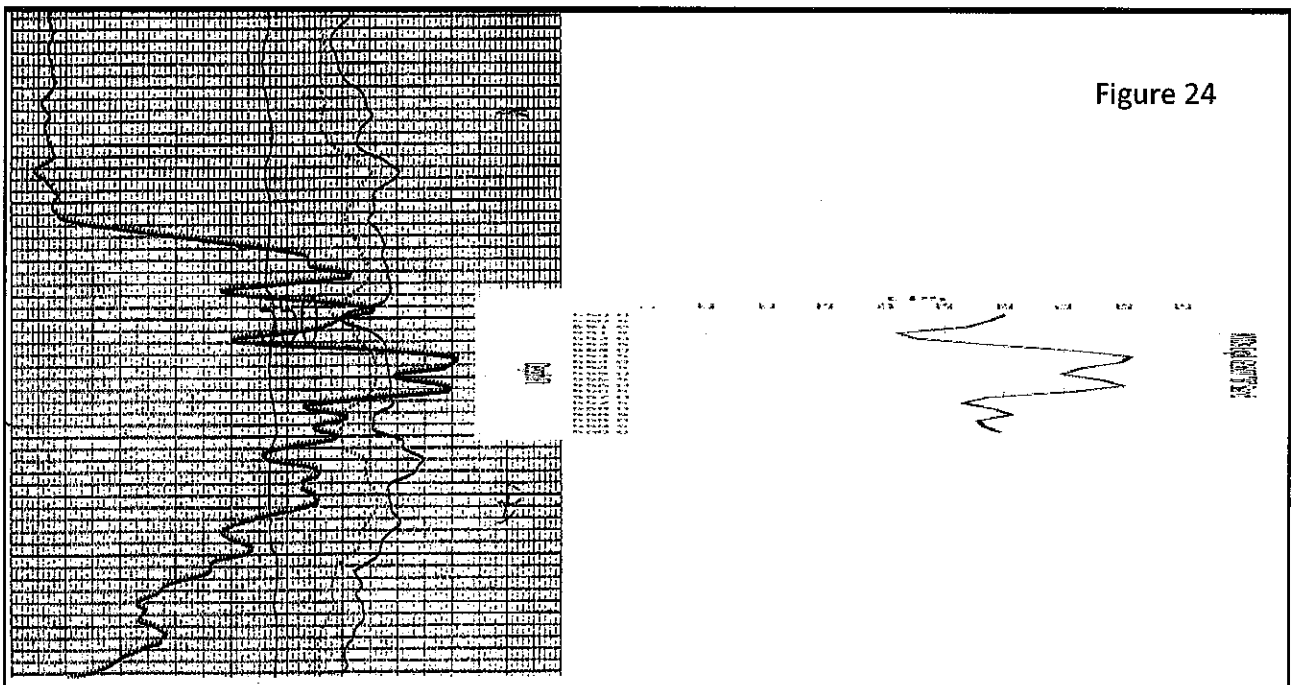


Figure 24

KVD's Expl. G1607 – "B" Sand - GR Log - Recorded & Digitized Curves Comparison

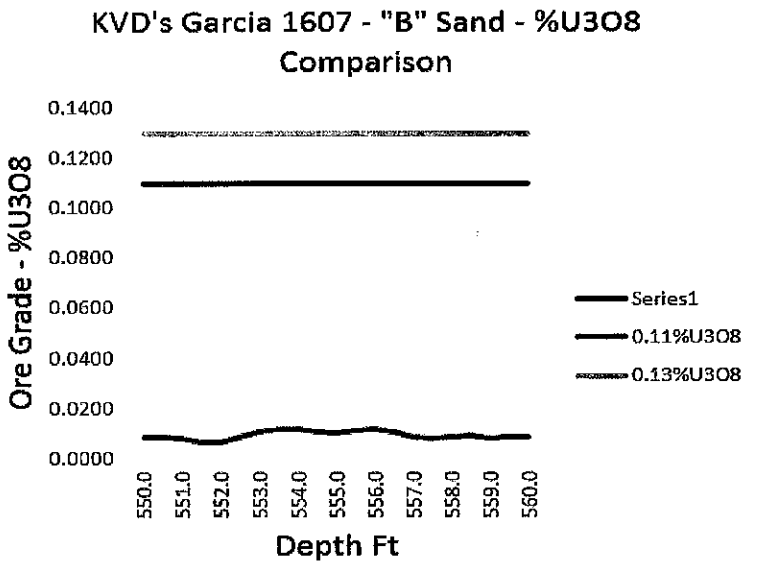
Table XIV

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVD's Expl. Garcia 1607

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR.	STEEL CASING CORRECTION
550.00	597	597.58	0.0074	0.0087	0.0087
550.50	574	573.90	0.0071	0.0084	0.0084
551.00	535	534.89	0.0066	0.0078	0.0078
551.50	421	420.66	0.0052	0.0061	0.0061
552.00	451	451.30	0.0056	0.0066	0.0066
552.50	571	571.11	0.0070	0.0083	0.0083
553.00	720	720.19	0.0089	0.0105	0.0105
553.50	811	810.75	0.0100	0.0118	0.0118
554.00	795	795.42	0.0098	0.0116	0.0116
554.50	731	731.33	0.0090	0.0106	0.0106
555.00	696	696.50	0.0086	0.0101	0.0101
555.50	762	761.98	0.0094	0.0111	0.0111
556.00	798	798.21	0.0098	0.0116	0.0116
556.50	721	721.58	0.0089	0.0105	0.0105
557.00	571	571.11	0.0070	0.0083	0.0083
557.50	529	529.32	0.0065	0.0077	0.0077
558.00	582	582.26	0.0072	0.0085	0.0085
558.50	611	611.51	0.0075	0.0089	0.0089
559.00	557	557.18	0.0069	0.0081	0.0081
559.50	565	565.54	0.0070	0.0082	0.0082
560.00	592	592.01	0.0073	0.0086	0.0086

Figure 25



The Assay for KVD's Exploratory Garcia 1607, "AA" Sand, is shown in Figures 26 and 27, and in Table XV.

Figure 27 illustrates the spread between the estimated ore grade values across the "AA" Sand in the Garcia 1607 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

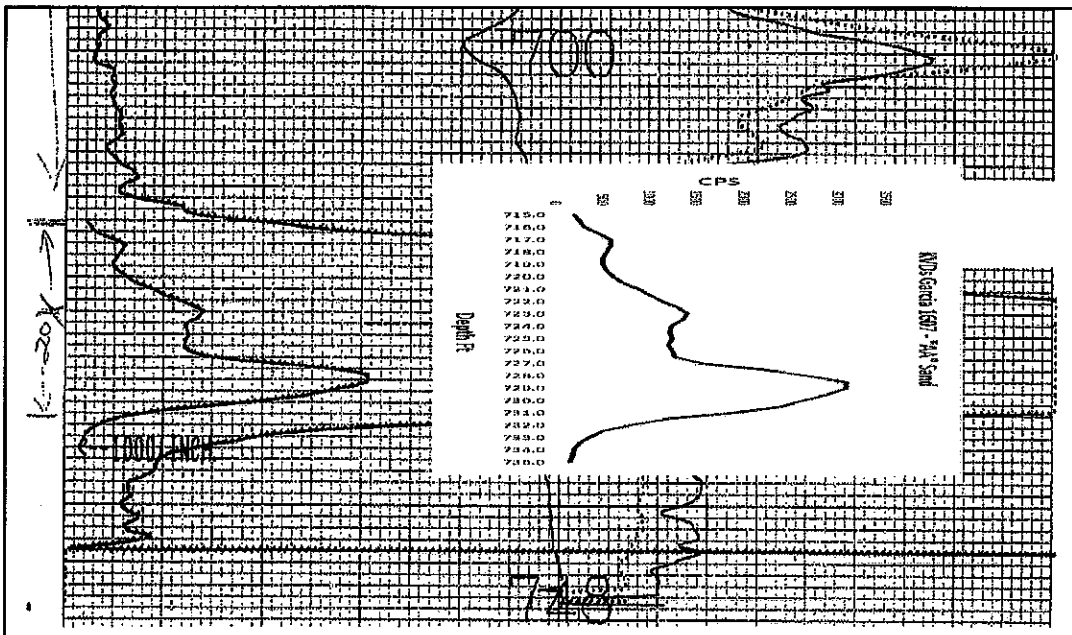


Figure 26

KVD's Expl. Garcia 1607 – "AA" Sand – GR Recorded & Digitized Curves Comparison

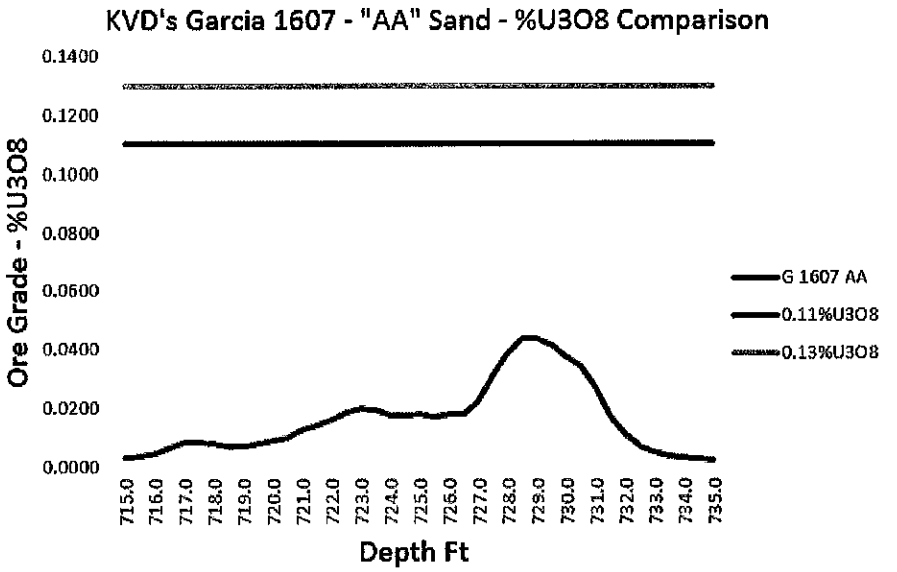
Table XV

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVD's Garcia 1607 "AA" Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	MUSCO RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR.	STEEL CASING CORRECTION
715.0	200	200.01	0.0025	0.0028	0.0028
715.5	250	250.02	0.0031	0.0035	0.0035
716.0	300	300.02	0.0037	0.0043	0.0043
716.5	450	450.05	0.0056	0.0064	0.0064
717.0	580	580.08	0.0072	0.0082	0.0082
717.5	590	590.09	0.0073	0.0084	0.0084
718.0	550	550.08	0.0068	0.0078	0.0078
718.5	500	500.06	0.0062	0.0071	0.0071
719.0	500	500.06	0.0062	0.0071	0.0071
719.5	540	540.07	0.0067	0.0077	0.0077
720.0	610	610.09	0.0075	0.0086	0.0086
720.5	700	700.12	0.0086	0.0099	0.0099
721.0	880	880.19	0.0109	0.0125	0.0125
721.5	1000	1000.25	0.0123	0.0142	0.0142
722.0	1140	1140.32	0.0141	0.0162	0.0162
722.5	1300	1300.42	0.0160	0.0184	0.0184
723.0	1400	1400.49	0.0173	0.0199	0.0199
723.5	1355	1355.46	0.0167	0.0192	0.0192
724.0	1225	1225.38	0.0151	0.0174	0.0174
724.5	1215	1215.37	0.0150	0.0172	0.0172
725.0	1250	1250.39	0.0154	0.0177	0.0177
725.5	1200	1200.36	0.0148	0.0170	0.0170
726.0	1250	1250.39	0.0154	0.0177	0.0177
726.5	1275	1275.41	0.0157	0.0181	0.0181
727.0	1550	1550.60	0.0191	0.0220	0.0220
727.5	2200	2201.21	0.0272	0.0312	0.0312
728.0	2700	2701.82	0.0333	0.0383	0.0383
728.5	3085	3087.38	0.0381	0.0438	0.0438
729.0	3085	3087.38	0.0381	0.0438	0.0438
729.5	2900	2902.10	0.0358	0.0411	0.0411
730.0	2640	2641.74	0.0326	0.0374	0.0374
730.5	2390	2391.43	0.0295	0.0339	0.0339
731.0	1900	1900.90	0.0235	0.0269	0.0269
731.5	1200	1200.36	0.0148	0.0170	0.0170
732.0	800	800.16	0.0099	0.0113	0.0113
732.5	500	500.06	0.0062	0.0071	0.0071
733.0	350	350.03	0.0043	0.0050	0.0050
733.5	250	250.02	0.0031	0.0035	0.0035

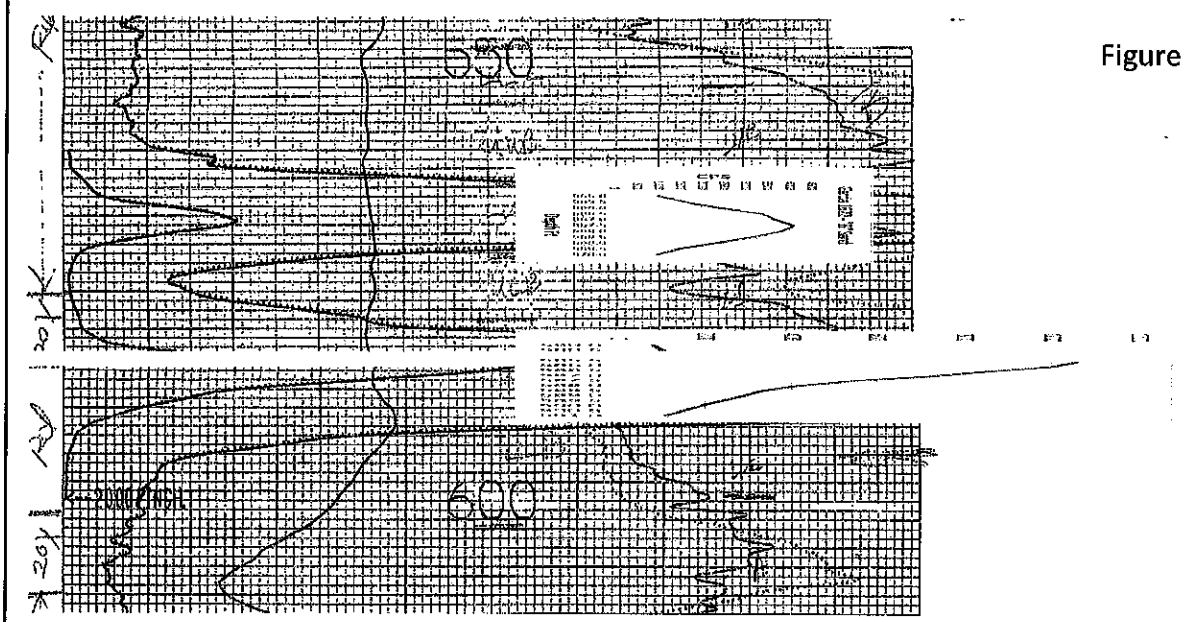
Figure 27



The Assay for KVD's Exploratory Garcia 1622, "B" Sand, is shown in Figures 28 and 29, and in Table XVI.

Figure 29 illustrates the proximity between the estimated ore grade values across the "B" Sand in the Garcia 1622 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

Figure 28



KVD's Exploratory Garcia 1622 – "B" Sand – GR Recorded & Digitized Curves Comparison

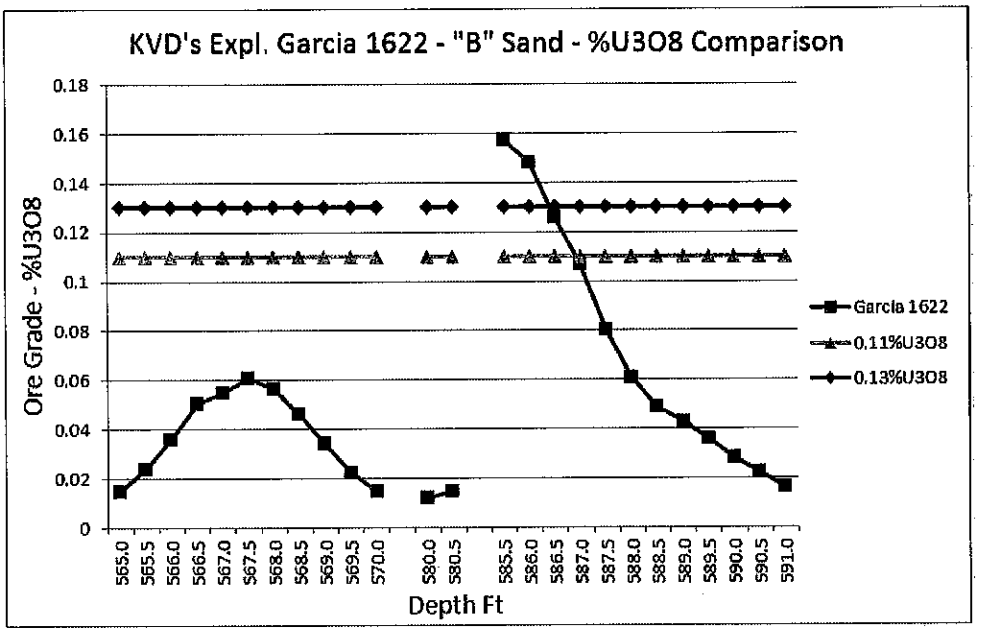
Table XVI

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Garcia 1622 "B" Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
565.00	1000.00	1000.25	0.0129	0.0148	0.0148
565.50	1600.00	1600.64	0.0206	0.0237	0.0237
566.00	2400.00	2401.44	0.0309	0.0355	0.0355
566.50	3400.00	3402.89	0.0438	0.0503	0.0503
567.00	3700.00	3703.43	0.0477	0.0548	0.0548
567.50	4100.00	4104.21	0.0529	0.0607	0.0607
568.00	3800.00	3803.61	0.0490	0.0563	0.0563
568.50	3100.00	3102.40	0.0400	0.0459	0.0459
569.00	2300.00	2301.32	0.0296	0.0340	0.0340
569.50	1500.00	1500.56	0.0193	0.0222	0.0222
570.00	1000.00	1000.25	0.0129	0.0148	0.0148
580.00	800.00	800.16	0.0103	0.0118	0.0118
580.50	1000.00	1000.25	0.0129	0.0148	0.0148
585.50	10600.00	10628.16	0.1369	0.1572	0.1572
586.00	10000.00	10025.06	0.1291	0.1483	0.1483
586.50	8500.00	8518.10	0.1097	0.1260	0.1260
587.00	7200.00	7212.98	0.0929	0.1067	0.1067
587.50	5400.00	5407.30	0.0696	0.0800	0.0800
588.00	4100.00	4104.21	0.0529	0.0607	0.0607
588.50	3300.00	3302.72	0.0425	0.0489	0.0489
589.00	2900.00	2902.10	0.0374	0.0429	0.0429
589.50	2400.00	2401.44	0.0309	0.0355	0.0355
590.00	1900.00	1900.90	0.0245	0.0281	0.0281
590.50	1500.00	1500.56	0.0193	0.0222	0.0222
591.00	1100.00	1100.30	0.0142	0.0163	0.0163

Figure 29



The Assay for KVD's Exploratory Garcia 1619, "B" Sand, is shown in Figures 30 and 31, and in Table XVII.

Figure 26 illustrates the spread between the estimated ore grade values across the "B" Sand in the Garcia 1619 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

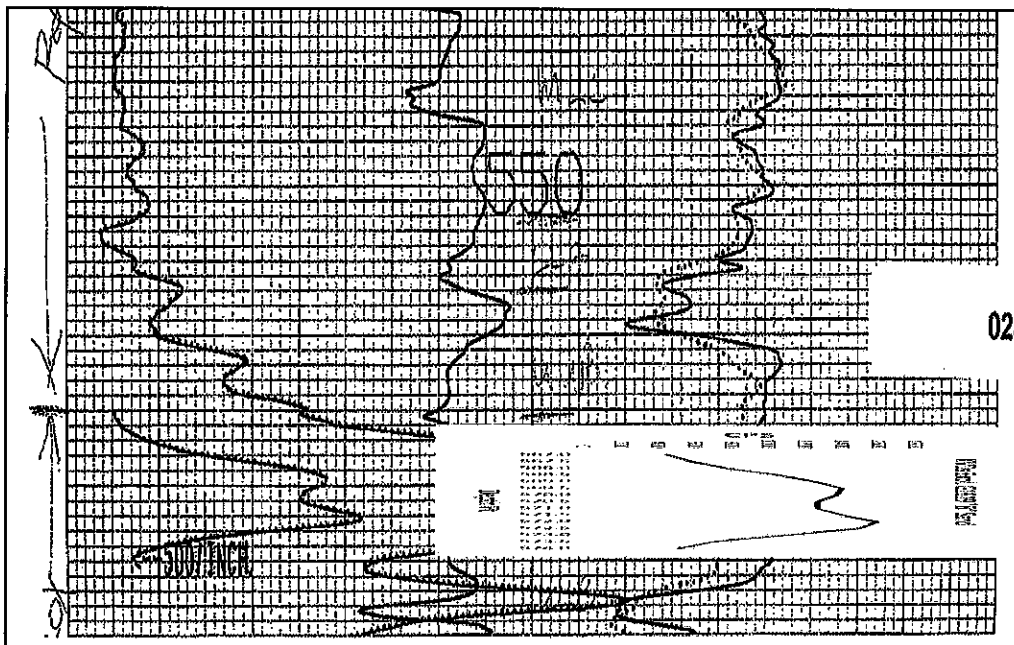


Figure 30

KVD's Exploratory Garcia 1619 – "B" Sand – GR Recorded & Digitized Curves Comparison

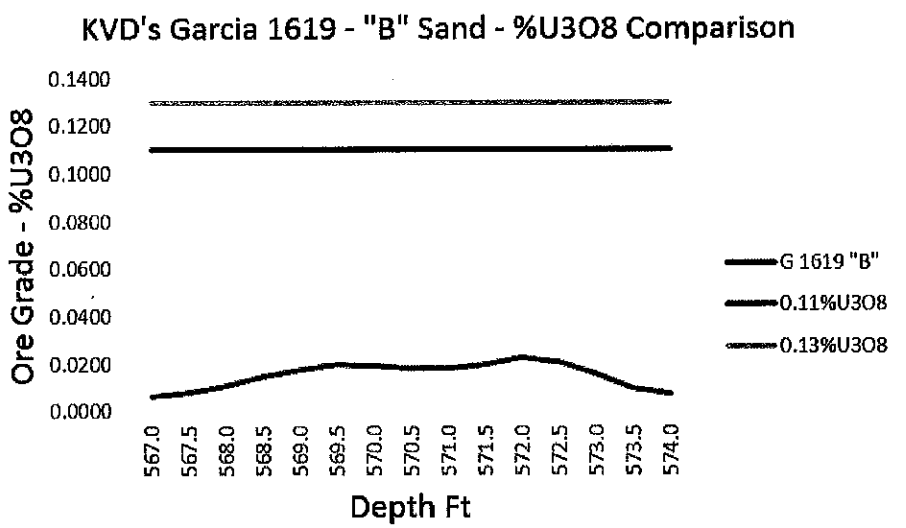
Table XVII

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVD's Garcia 1619 "B" Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR.	STEEL CASING CORRECTION
567.00	448	448.33	0.0055	0.0065	0.0065
567.50	579	578.63	0.0071	0.0083	0.0083
568.00	762	762.60	0.0094	0.0110	0.0110
568.50	1054	1053.92	0.0130	0.0152	0.0152
569.00	1253	1253.27	0.0155	0.0180	0.0180
569.50	1402	1402.79	0.0173	0.0202	0.0202
570.00	1368	1368.28	0.0169	0.0197	0.0197
570.50	1272	1272.44	0.0157	0.0183	0.0183
571.00	1268	1268.60	0.0157	0.0183	0.0183
571.50	1410	1410.46	0.0174	0.0203	0.0203
572.00	1590	1590.67	0.0196	0.0229	0.0229
572.50	1490	1490.98	0.0184	0.0215	0.0215
573.00	1100	1099.92	0.0136	0.0158	0.0158
573.50	701	701.27	0.0087	0.0101	0.0101
574.00	517	517.31	0.0064	0.0074	0.0074

Figure 31



The Assay for KVD's Exploratory Garcia 1619, "AA" Sand, is shown in Figures 32 and 33, and in Table XVIII.

Figure 33 illustrates the spread between the estimated ore grade values across the "AA" Sand in the Garcia 1619 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

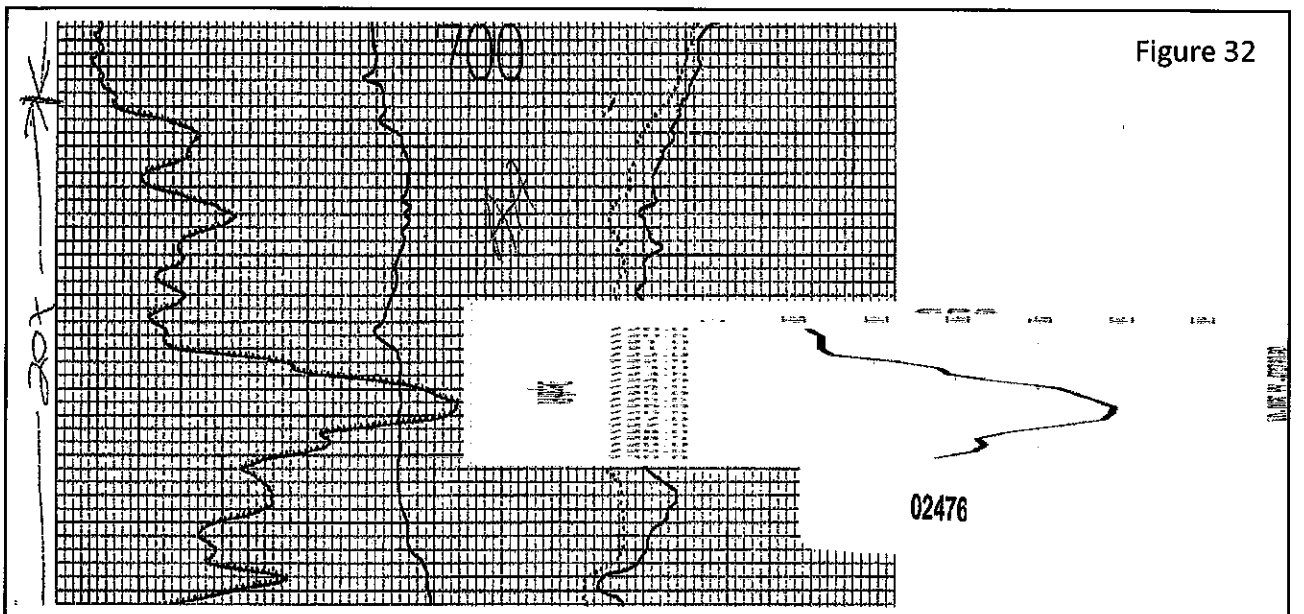


Figure 32

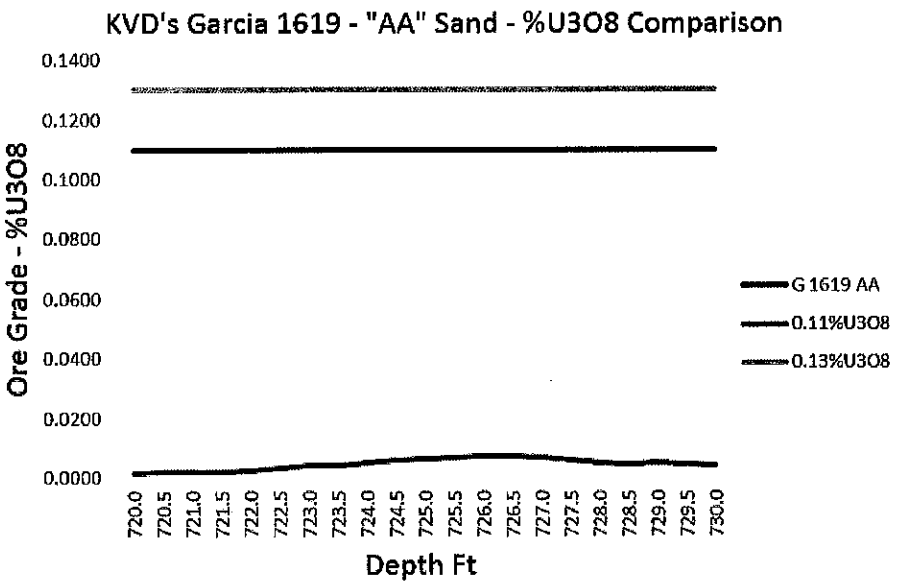
KVD's Exploratory Garcia 1619 – "AA" Sand – GR Recorded & Digitized Curves Comparison

Table XVIII

KVD's Garcia 1619 "AA" Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR.	STEEL CASING CORRECTION
720.0	117	117.19	0.0014	0.0017	0.0017
720.5	135	135.16	0.0017	0.0019	0.0019
721.0	134	134.38	0.0017	0.0019	0.0019
721.5	134	133.60	0.0016	0.0019	0.0019
722.0	148	148.44	0.0018	0.0021	0.0021
722.5	227	226.58	0.0028	0.0033	0.0033
723.0	278	278.14	0.0034	0.0040	0.0040
723.5	291	291.43	0.0036	0.0042	0.0042
724.0	348	347.69	0.0043	0.0050	0.0050
724.5	422	421.92	0.0052	0.0061	0.0061
725.0	448	448.49	0.0055	0.0065	0.0065
725.5	470	470.37	0.0058	0.0068	0.0068
726.0	493	493.03	0.0061	0.0071	0.0071
726.5	490	489.90	0.0060	0.0071	0.0071
727.0	478	478.18	0.0059	0.0069	0.0069
727.5	421	421.14	0.0052	0.0061	0.0061
728.0	361	360.97	0.0045	0.0052	0.0052
728.5	327	327.37	0.0040	0.0047	0.0047
729.0	336	335.97	0.0041	0.0048	0.0048
729.5	323	322.68	0.0040	0.0046	0.0046
730.0	277	276.58	0.0034	0.0040	0.0040

Figure 33


KVD's Garcia 1619 - "AA" Sand - %U3O8 Comparison
Ore Grade - %U3O8
0.1400
0.1200
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
720.0
720.5
721.0
721.5
722.0
722.5
723.0
723.5
724.0
724.5
725.0
725.5
726.0
726.5
727.0
727.5
728.0
728.5
729.0
729.5
730.0
Depth Ft
G 1619 AA
0.11%U3O8
0.13%U3O8

Elizabeth Cumberland
761 Martindale Falls Rd
Martindale, Texas 78655
July 26, 2015

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
2015 JUL 30 PM 2:52
CHIEF CLERKS OFFICE

Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

REVIEWED
JUL 30 2015
By

H

WR/84705

Re: Request for Contested Hearing, Permit No. UR02827, URI's Kingsville Dome Mine Application for Renewal and Major Amendment for Class III Area Permit

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

I am Elizabeth Cumberland. My mailing address is 761 Martindale Falls Rd, Martindale, Texas 78655. My day time telephone number is 512-357-2897.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal justiciable interest because I own a share of the minerals inside PAA3 -- in 160 acres of PAA3, Lots 3-6, Section 48, Kleberg County, Texas. These mineral interests are filed in Vol. 435, page 775 (Trustee's deed) of the Kleberg County deed records.

I would be adversely affected by the proposed permit and major amendment. I have a legal duty to neighboring landowners not to reduce the value of their property. Mr. Saenz has commented that the groundwater at Garcia Hill has been contaminated due to mining. Any groundwater contamination caused by uranium mining could result in my personal liability to water well owners who are affected, such as the families at Garcia Hill, because URI is seeking a renewal permit not only to mine but to amend the Restoration Table in PAA3 where my minerals are located. Amending the Restoration Table will result in leaving a higher concentration of uranium in the groundwater, further impacting water well owners and increasing my personal liability. Therefore, I am financially adversely impacted.

I would be further adversely affected because, due to TCEQ rules, the well fields are fenced and a sign is placed on gates warning those who enter about of the danger of radioactivity. Those fences and that signage discourage exploration of oil and gas of my minerals.

Oil and gas exploration and production uses groundwater. Contamination of groundwater due to uranium and radium creates a problem with water usage. In addition, exploration and production is obstructed due to numerous above and below ground pipes which carry highly contaminated fluids, as

well as the thousands of production and injection wells. Uranium mining activity therefore reduces the likelihood of a new oil and gas lease – this is significant since there has been oil and gas production in that particular area for many years prior to mining. In that way, a new permit will have a second adverse effect on me financially.

The third effect on me financially is groundwater contamination on my share of 50.33 acres three miles northwest of Garcia Hill, Lots 11-14, Section 22, Kleberg County, Texas. This property is down-gradient from the Garcia well which is contaminated; it may become contaminated because uranium is mobile and the groundwater is flowing toward the Kingsville wells which are directly northwest of it.

Please see the following ATTACHMENT A for relevant, material, disputed issues of facts, related to Mr. Saenz' comment. Please see also ATTACHMENT B, *141121GoliadAquifersUoreRadiometricGradesAroundKVDsPA-3Area_01 (1)*, which is also relevant, material, and disputed, sent separately through the TCEQ e-comment system.

Very truly yours,
Elizabeth Cumberland

ATTACHMENT A

The following issues of fact are disputed and relevant to groundwater contamination complained about in Mr. Saenz' comment:

The groundwater at Garcia Hill is contaminated by the KVD mine. That contamination is due to failure of systems designed to detect or prevent groundwater contamination as follows:

1. The Control Parameter Upper Limits determine whether or not the operator is obligated to take action to control an excursion detected by the monitor wells. When an excursion is detected, the operator can adjust the pressures to maintain a balance so that mining fluids do not escape the well fields. The upper limits value on uranium is based on the highest concentration found in the production area. At the KVD, the upper limit value is flawed because it was not determined according to proper statistical practices; in some cases, samples were collected after mining had started up-gradient. In addition, the upper limits are set extremely high with no relationship to the monitor well baseline (5 mg. is added to the highest value), so that the uranium concentration in a monitor well can be considerably higher than the monitor well baseline, yet not exceed the upper limit. For example, the baseline for uranium in Monitor Well 102 is 0.020 mg/L, well below the MCL of 0.03 mg/L. However, detection of an excursion of uranium is not triggered until the concentration of uranium in the monitor well is above the upper limit of 6.154 mg/L, three hundred and eight times greater than the baseline.

2. Rules require that water levels in the monitor wells are monitored during mining. Increased water levels can be used to detect excursions; however, at the KVD, in spite of increasing water

levels in the monitor wells, no action, or insufficient action, was taken by the operator to control water pressure within the minefield.

3. A continuous bleed is required to prevent excursions by keeping mine fluids within the mine field. Yet in 2003 the TCEQ inspector reported that a bleed was not maintained for months (May through December).

4. Restoration is required to begin shortly after mining is completed within a mine field. Restoration will reduce the concentration of ground water contaminants. At the KVD, mining was initially started in 1988. Restoration is still not complete, twenty-seven years later. That extreme delay has contributed to groundwater contamination outside the mine by allowing more time for injected oxygen to dissolve uranium and for the contaminated water within the mine to migrate.

5. In 1997 the TCEQ inspector reviewed the lab results for wells in the area of review and found that the uranium concentration in the Garcia storage tank increased from 0.011 mg/L to .184 mg/L. See 1997 inspection report by TNRCC and attachment X-2. See also #1 below regarding dates for MCL rule for uranium. However, the TCEQ took no action until 2005 when, apparently without examining the well log, it advised the Garcia families not to drink their water and that uranium in their water was naturally occurring.

6. Specifically, the Garcia groundwater is contaminated as follows:

In 1988, as part of its application to the TCEQ (formerly called the Texas Water Commission) to expand the KVD mine from 531 acres to 2,135 acres, URI tested the water wells located near the perimeter of the expansion area. On May 13, 1988, it filed lab reports on those wells as part of the application. Two lab reports for Garcia family wells were included: one was called "A. Garcia" (the storage tank) and the other called "Y.G. Garcia" (the well in the pasture). Before that date, URI had numbered the water wells on the perimeter; please note that these wells were called WW24 and WW25 in other lab reports – in the 1988 application, the well in pasture was called WW20 on the map enclosed with the application.

The Garcia families live within one-fourth mile of the expansion area at a settlement called Garcia Hill. In the early nineteen forties, they drilled a water well which was then connected to a storage tank. The storage tank was connected to the Garcia family homes. There are about nine homes. In 1967, a second well was drilled and it was also connected to the storage tank. A third well was located in a pasture northeast of the homes but it was not connected to the storage tank.

When on March 31, 1988, URI obtained a sample of the so-called "A. Garcia" well, it obtained that sample from the <u>storage tank</u>. See #2 below for Pelizza's day five, 2005 testimony, page 166, lines 18-25, and page 168, lines 18-25. There was no other access to obtain a sample of the water; the original well and the 1967 well were both connected directly to the tank. To increase water pressure for distribution of water to the homes, a pressure tank was installed between the storage tank and the main

line to the homes. There was and is a tap on the storage tank and there was and is a tap on the pressure tank.

On the same date, URI obtained a sample from the so-called "Y.G. Garcia" well – that well was located in a pasture northeast of Garcia Hill and is designated WW20 on URI maps, including the 1988 map which was part of the 1988 expansion application. The well is located on property inherited from her father by Zulema Garcia Martinez, part of the original Garcia estate. (After the 1988 test, WW20 was never tested again, according to TCEQ records.)

For "A. Garcia," the lab reported 0.011 mg/L uranium and 1.1 pCi/L Radium; for "Y.G. Garcia," the lab reported 0.032 mg/L uranium and 3.2 pCi/L Radium. See #3 March 31, 1988 lab reports below.

In 1989, while exploring for uranium on the Garcia property, URI drilled an exploration well about twenty-five feet southeast of the original Garcia well – the gamma ray log of that well recorded an insignificant ore grade, consistent with the below EPA drinking water standard for uranium observed in the water in numerous wells in the Garcia Hill area. See ATTACHMENT B, 141121GoliadAquifersUoreRadiometricGradesAroundKVDsPA-3Area_01 (1), sent separately as an e-comment. That exploration well, unlike others, was therefore not used for uranium production. URI then plugged the original well because the exploration well was to be used for drinking water and all other purposes, since it was a newer well in almost the same location, very close to the storage tank. A pump was installed in the exploration well which was then connected to the existing storage tank.

Please note that it is not likely that URI would have logged a well, found that the well had been drilled into an ore deposit "trend," as it has defended, and then offered it as a drinking water source to anyone.

According to TCEQ records, the Garcia Hill water was not tested again until December 1996. As in 1988, the December 13, 1996 sample was obtained from the storage tank. See #2 Pelizza testimony below. The lab reported 0.184 mg/L uranium and 0.07 pCi/L Radium – seventeen times higher than the 1988 value on the sample obtained from the same storage tank. See #4 December 13, 1996 lab report below.

Beginning December 1996, URI tested the Garcia water quarterly. In its records including maps, URI had designated the exploration well WW24 (the same number it had given the original Garcia Hill well); it had designated the 1967 well which was also connected to the storage tank as WW25. Test results between 1996 and 2004 remained generally at 0.200 mg/L; results were charted in 2004 by Region Six EPA. See #5 *URI/Kingsville Dome Project Combined W24 & W25 Garcia Hills Domestic Wells Water Quality Data* below.

In 2005, after receiving notification from the EPA that their water had high levels of uranium, the Garcia families connected to public water; initially the water wells were disconnected from the storage tank. The public water line was then connected to the storage tank and at least twice in 2005 URI sampled public water. Early in 2005, the second water well (the well drilled in 1967) was shut in due to excess sanding. In late 2005, the public water line was disconnected from the storage tank and connected to

the main line to distribute water to the homes. At that time, the exploration well was reconnected to the storage tank.

Beginning in late 2005, uranium concentrations in the exploration well, whether sampled from the storage tank tap or the pressure tank tap, began to elevate even higher although Radium concentrations remained generally the same. Please see the following:

Date	U (mg/L)	Ra-226 (pCi/L)
Dec. 2005	0.636	1.3
March 2006	0.750	--
May 2006	0.730	1.2
Feb. 2007	0.732	1.3
March 2007	0.797	1.1
June 2007	0.979	1.1
March 2008	0.729	1.3
June 2008	0.649	1.6
July 2008	0.822	--
Aug. 2008	0.943	2.8
Dec. 2008	0.502	1.0
March 2009	0.700	1.7
May 2009	0.600	1.1
March 2010	0.760	1.2
June 2010	0.848	0.91
Sept. 2010	0.770	1.3
Dec. 2010	0.699	1.1
March 2011	0.624	1.4
June 2011	--	1.1
Oct. 2011	--	1.5
Dec. 2011	1.04	--

March 2012	0.917	0.74
June 2012	0.862	1.2
Dec. 2012	1.07	1.08
March 2013	0.780	1.2
June 2013	0.749	.98
March 2014	0.975	1.5

In December 2011, when URI tested the Garcia well; the results were 1.04 mg/L uranium (over 1000 micrograms per liter – the EPA water quality standard is 30 micrograms per liter uranium). See the test result here:

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Uranium Resources Inc.
Project ID: KVD Q4 GW 2011
Sample ID: GARCIA WELL

ACZ Sample ID: *L92474-01*
Date Sampled: *12/21/11 09:30*
Date Received: *12/22/11*
Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	0.0027			mg/L	0.0005	0.002	01/10/12 17:48	msh
Cadmium, dissolved	M200.8 ICP-MS		U		mg/L	0.0001	0.0005	01/10/12 17:48	msh
Iron, dissolved	M200.7 ICP		U		mg/L	0.02	0.05	01/03/12 12:10	mfm
Manganese, dissolved	M200.7 ICP		U		mg/L	0.005	0.03	01/03/12 12:10	mfm
Mercury, dissolved	M7470A CVAA		U		mg/L	0.0002	0.001	01/13/12 23:20	erf
Molybdenum, dissolved	M200.7 ICP	0.07			mg/L	0.01	0.05	01/03/12 12:10	mfm
Selenium, dissolved	M200.8 ICP-MS	0.0066			mg/L	0.0001	0.0003	01/10/12 17:48	msh
Uranium, dissolved	M200.8 ICP-MS	1.040			mg/L	0.001	0.005	01/12/12 18:54	msh

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride	SM4500Cl-E	260		*	mg/L	10	50	12/29/11 18:36	lhb
Conductivity @25C	SM2510B	1580			umhos/cm	1	10	12/28/11 18:02	lac

By late 2012, the exploration well had been connected directly to the pressure tank, bypassing the storage tank. On December 20, 2012, early in its investigation, TCEQ obtained a sample from both the pressure tank which was connected directly to the exploration well and the storage tank which was not being used. The prior month, I met TCEQ enforcement director Derek Eades and inspector Muhammed Abbuzadeh at the site of the exploration well. Mr. Abbuzadeh said he would also test the storage tank although he knew it was no longer being used. The test results of the "active working well Garcia Hill"

were 1.07mg/L uranium and 1.08 pCi/L Radium. See that report here:

Texas Department of State Health Services Laboratory

1100 West 49th Street
Austin, Texas 78756-3194

Environmental Sciences Branch
Radiochemical Analysis Report

Tel. (512) 776-7587
FAX (512) 776-7757

DSHS Sample Number: AC07093
Sample Type: Water
Submitter: TCEQ
Submitter ID: Garcia Hill
Active (working) well
TCEQ Sample ID: 1 of 4

Date Collected: 12/20/12 9:34 AM
Date Received: 12/21/12

Analyte/ Radionuclide	Method	Activity	Combined Standard Uncertainty k=1	Units	MDA	Critical Level
Radium-226	SM 7500-Ra D	1.08E-09	6E-11	µCi/ml	3E-11	1E-11
Total Uranium	SM 7500-U C	1066	62	µg/ml	4.7	2.3
Uranium-234	SM 7500-U C	3.23E-07	2.3E-08	µCi/ml	1.1E-09	6E-10
Uranium-235	SM 7500-U C	2.1E-09	3E-09	µCi/ml	1.6E-09	8E-10
Uranium-238	SM 7500-U C	3.55E-07	2.7E-08	µCi/ml	1.3E-09	7E-10
Total Uranium Activity	SM 7500-U C	6.89E-07	5.4E-08	µCi/ml	4.0E-09	2.0E-09
Gross Alpha	EPA 900.0	6.79E-07	9E-09	µCi/ml	1.6E-09	8E-10
Gross Beta	EPA 900.0	3.56E-07	5E-09	µCi/ml	3.9E-09	2.0E-09

Analyte/ Radionuclide	Tracer/ Carrier Yield	Sample Volume/Mass Used (mL)	Batch ID	Analysis Date	Analyst	Data Reviewer
Radium-226	0.708	2000	50814	24-Jan-13	SAW	SJG
Total Uranium (µg/ gram)	0.778	50	51835	12-Feb-13	SJG	VK
Uranium-234	0.778	50	51194	12-Feb-13	SJG	VK
Uranium-235	0.778	50	51194	12-Feb-13	SJG	VK

Comparison of Garcia water values after 1988 with the concentration of leaching solution, as in the TCEQ response to Mr. Saenz' comment, is not based on ordinary science -- the exploration well is a considerable distance from the injection wells and by the time the water reaches the Garcia well it is grossly diluted.

Footnotes

#1. Dates for MCL rule for uranium: In 1991, EPA proposed a MCL of 0.02mg/L for uranium – giving notice to the state programs under the Safe Drinking Water Act that uranium was to be regulated. In 2000, it revised that proposal with a final rule of a MCL of 0.03 mg/L based on a cost/benefit analysis; that rule was fully effective in 2003. See https://www.federalregister.gov/articles/2000/12/07/00-30421/national-primary-drinking-water-regulations-radionuclides-final-rule#h-12 In 2000, the announcement of the final rule, based on cancer rates and kidney toxicity, was notice to the TNRCC that closer attention was expected of its UIC program under the Safe Drinking Water Act due to the danger of levels over 0.03mg/L uranium in drinking water.

#2. Pelizza's day five, 2005 testimony, page 166, lines 5-11, and page 168, lines 18-25.

5 A. Well, no. Obviously we don't replace the well

6 that we plug. We sample the well that we replace. So

7 what we sampled and have sampled since about 1996 is the

8 tank from Garcia Hill, which is fed from two water

9 wells. One is a new water well that we drilled in 1989

10 subsequent to the samples that were taken in

11 Protestant's Exhibit 10 and Protestant's Exhibit 8.

.....

18 That well -- you know, we sample a

19 combined two wells at the Garcia Hill community. And I

20 think that we have a designation 24/25. We sample wells

21 out of a common tank because my understanding on how

22 that's operated is those wells are pumped individually

23 and the water is commingled into a common tank before it

24 goes to a tap where it can be sampled. And I think

25 that's the understanding that we noted on this map that

#3. March 31, 1988 lab reports .

TEL. 512-884-0371 PO BOX 2552 78403

JORDAN LABORATORIES, INC.
CHEMISTS AND ENGINEERS
CORPUS CHRISTI, TEXAS
MAY 12, 1988

URI, INC.
12377 MERIT DR., SUITE 750, LB14
DALLAS, TEXAS 75251

REPORT OF ANALYSIS

IDENTIFICATION: A. GARCIA
3-31-88

		ANALYSIS DATE
PH ---------- 8.19		4-04-88
SPECIFIC CONDUCTANCE 1640 UMHOS/CM @ 25 DEG.C.		4-27-88
	MG/L	
TOTAL DISSOLVED SOLIDS (180 DEG.C.) ----------	974	4-11-88
ARSENIC ----------	0.003	4-08-88
COPPER ----------	<0.01	5-09-88
MOLYBDENUM ----------	0.01	5-03-88
SELENIUM ----------	0.003	4-08-88
URANIUM (NATURAL) ----------	0.011	4-18-88
GROSS ALPHA ACTIVITY, PCI/L ------- 9.2 +/- 11		4-27-88
GROSS BETA ACTIVITY, PCI/L ------- 6.3 +/- 6.2		4-27-88
RADIUM 226, PCI/L ---------- 1.1 +/- 0.2		4-19-88
THORIUM 230, PCI/L ---------- -0.4 +/- 0.7		5-12-88

LAB. NO. M26-2219

RESPECTFULLY SUBMITTED,

CARL F. CROWNOVER

TEL. 512-884-0371 PO BOX 2552 78403

JORDAN LABORATORIES, INC.
CHEMISTS AND ENGINEERS
CORPUS CHRISTI, TEXAS
MAY 12, 1988

URI, INC.
12377 MERIT DR., SUITE 750, LB14
DALLAS, TEXAS 75251

REPORT OF ANALYSIS

IDENTIFICATION: Y.C. GARCIA
3-31-88

		ANALYSIS DATE
PH ----------	8.24	4-04-88
SPECIFIC CONDUCTANCE 1550 UMHOS/CM @ 25 DEG.C.		4-27-88
	MG/L	
TOTAL DISSOLVED SOLIDS (180 DEG.C.) ----------	858	4-11-88
ARSENIC ----------	<0.001	4-08-88
COPPER ----------	<0.01	5-03-88
MOLYBDENUM ----------	0.08	5-03-88
SELENIUM ----------	0.010	4-08-88
URANIUM (NATURAL) ----------	0.032	4-18-88
GROSS ALPHA ACTIVITY, PCI/L ------	22 +/- 13	4-27-88
GROSS BETA ACTIVITY, PCI/L -------	21 +/- 7	4-27-88
RADIUM 226, PCI/L ----------	3.2 +/- 0.2	4-13-88
THORIUM 230, PCI/L ----------	0.6 +/- 0.9	5-12-88

LAB. NO. M26-2220

RESPECTFULLY SUBMITTED,

CARL F. CROWNOVER

#4. December 13, 1996 lab report.

TEL. 512-884-0371 PO BOX 2552 78403

JORDAN LABORATORIES, INCORPORATED
ANALYTICAL & ENVIRONMENTAL CHEMISTS
CORPUS CHRISTI, TEXAS
FEBRUARY 5, 1997

URI, INC.
12750 MERIT DRIVE, SUITE 1020, LB12
DALLAS, TEXAS 75251

1996
URI-KVD
RML: RW36653

REPORT OF ANALYSIS

IDENTIFICATION: KVD
GARCIA
12-13-96

METHOD NUMBER			ANALYSIS DATE
SM 4500-H	PH ----------	8.14	12-27-96
SM 2510	SPECIFIC CONDUCTANCE 1660 UMHOS/CM @ 25 DEG.C.		12-27-96
ASTM D2907-83	URANIUM (NATURAL), MG/L ----------	0.184	12-31-96
SW-846 9310	GROSS ALPHA ACTIVITY, PCI/L ----------	108	01-28-97
	COUNTING ERROR, PCI/L ---------- +/-	10	
SW-846 9310	GROSS BETA ACTIVITY, PCI/L ----------	45	01-28-97
	COUNTING ERROR, PCI/L ---------- +/-	5	
SM 7500-RA C.	RADIUM 226, PCI/L ----------	0.7	01-23-97
	COUNTING ERROR, PCI/L ---------- +/-	0.1	

ANALYSTS: STRAUSS (PH, SPEC. CONDUCTANCE, RADIUM 226);
KUME (URANIUM); CHAPA (GROSS ALPHA/BETA)

LAB. NO. M34-11334

RESPECTFULLY SUBMITTED,

CARL F. CROWNOVER, PRES.

Form: S2-4

00048

#5. *URI/Kingsville Dome Project Combined W24 & W25 Garcia Hills Domestic Wells Water Quality Data.*

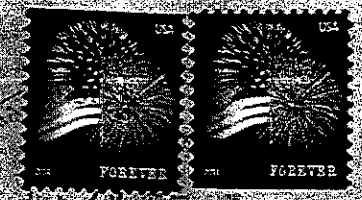
URI/Kingsville Dome Project
Combined W-24 &W-25 Garcia Hills Domestic Wells Water Quality Data

Sample ID	Uranium (mg/l)	Gross Alpha (pCi/l)	Gross Beta (pCi/l)	Radium 226 (pCi/l)	Specific conductance and PH
12/13/96	0.184	108(+/-)10	45 (+-) 5	0.7 (+-) 0.1	1660 / 8.14
5/23/97	0.220	124 (+-) 11	40 (+-) 5	0.7 (+-) 0.1	1570 / 8.18
8/29/97	0.152	67 (+-) 8	45 (+-) 5	0.5 (+-) 0.1	1620 / 8.18
2/25/98	0.189	88 (+-) 9	32 (+-) 4	0.7 (+-) 0.1	1630 / 8.05
W-24 only 6/18/98	0.152	103 (+-) 10	37 (+-) 5	0.8 (+-) 0.1	1640 / 8.14
W-25 only 6/18/98	0.167	102 (+-) 10	30 (+-) 5	0.9 (+-) 0.1	1630 / 8.20
8/27/98	0.158	94 (+-) 10	36 (+-) 5	0.7 (+-) 0.1	1660 / 8.21
11/25/98	0.209	111 (+-) 10	48 (+-) 5	0.7 (+-) 0.1	1630 / 8.04
3/26/99	0.200	99 (+-) 10	45 (+-) 5	1.2 (+-) 0.1	1620 / 8.15
6/21/99	0.181	96 (+-) 10	49 (+-) 5	0.7 (+-) 0.1	1630 / 8.09
8/24/00	0.151	71 (+-) 8	24 (+-) 4	0.9 (+-) 0.1	1560 / 8.28
9/19/00(Split with TDH)	0.187	Na	Na	0.4 (+-) 0.1	1600 / 8.30
11/6/00	0.168	72 (+-) 7	31 (+-) 5	0.9 (+-) 0.1	Na
2/19/01	0.184	78 (+-) 7	24 (+-) 4	0.7 (+-) 0.1	1570 / 8.15
06/11/01	0.179	72 (+-) 7	38 (+-) 4	0.8 (+-) 0.1	1510 / 8.03
9/13/01	0.160	81 (+-) 8	32 (+-) 4	0.8 (+-) 0.1	1430 / 8.03
12/17/01	0.240	113 (+-) 9	26 (+-) 5	0.9 (+-) 0.1	1610 / 0.1
3/21/02	0.164	89 (+-) 9	33 (+-) 4	0.8 (+-) 0.1	1680 / 8.16
6/26/02	0.141	74 (+-) 8	22 (+-) 4	0.6 (+-) 0.1	1720 / 8.17
9/30/02	0.172	82 (+-) 8	11 (+-) 3	0.8 (+-) 0.1	1660 / 8.13
12/13/02	0.188	126 (+-) 10	28 (+-) 4	0.7 (+-) 0.1	1590 / 8.13
3/11/03	0.180	134 (+-) 11	29 (+-) 4	0.7 (+-) 0.1	1760 / 8.27
6/23/03	0.172	78 (+-) 8	19 (+-) 4	0.7 (+-) 0.1	1600 / 8.11
9/26/03	0.170	135 (+-) 14	21 (+-) 4	0.6 (+-) 0.1	1710 / 8.20
12/12/03	0.187	118 (+-) 13	22 (+-) 4	0.8 (+-) 0.1	1630 / 8.05

00150

CERTIFIED MAIL

7015 0640 0001 3086 8306



SEP 29 2015

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Marisa Weber

From:	PUBCOMMENT-OCC
Sent:	Monday, July 20, 2015 12:27 PM
To:	PUBCOMMENT-WPD; PUBCOMMENT-ELD; PUBCOMMENT-OCC2; PUBCOMMENT-OPIC
Subject:	FW: Public comment on Permit Number UR02827
Attachments:	1.pdf

UR/84705

From: ecumberland60@gmail.com [mailto:ecumberland60@gmail.com]
Sent: Friday, July 17, 2015 3:07 PM
To: DoNot Reply
Subject: Public comment on Permit Number UR02827

REGULATED ENTY NAME KINGSVILLE DOME

RN NUMBER: RN102380763

PERMIT NUMBER: UR02827

DOCKET NUMBER:

COUNTY: KLEBERG

PRINCIPAL NAME: URI INC

CN NUMBER: CN600604417

FROM

NAME: Elizabeth Cumberland

E-MAIL: ecumberland60@gmail.com

COMPANY:

ADDRESS: 761 MARTINDALE FALLS RD
MARTINDALE TX 78655-2530

PHONE: 5123572897

FAX:

COMMENTS: Re UR02827 Final Decision Letter dated 7-14-15. This letter is defective, as are all previous notice letters on the proposed major amendment and permit application, in that it does not include hundreds of mineral and surface owners identified by the operator as adjacent to the KVD mine. I will attach the list of

MW

owners provided to the TCEQ. In the attached file, begin at page 28, Attachment D, which contains the officials entitled to notice, seven pages of mineral owners and thirty-four pages of surface owners entitled to notice.

UIC/UR02827/PA

Kingsville Dome In Situ Recovery Project
Permit # UR02827
Renewal Application and Technical Report

TCEQ
RADIOACTIVE
MATERIALS DIVISION
2012 SEP 26 PM 12 38

September 24, 2012

URI, Inc.
405 State Highway 121 Bypass
Building A, Suite 110
Lewisville, Texas 75067

URI, INC.

(A Subsidiary of Uranium Resources, Inc.)

Kingsville Dome Project
641 East FM 1118
Kingsville, Texas 78363
Telephone: (361) 595-5731
Fax: (361) 595-0403

405 State Highway 121 Bypass
Building A, Suite 110
Lewisville, Texas 75067
Telephone: (972) 219-3330
Fax: (972) 219-3311

Rosita Project
3021 County Road 333
San Diego, Texas 78384
Telephone: (361) 279 - 3307
Fax: (361) 279 - 2260

TCEQ
RADIOACTIVE
MATERIALS DIVISION
2012 SEP 28 PM 12: 37

ORIGINAL

September 26, 2012

DUE DATE UR02827

ARTS # 16122932

PM Lorig.

Mr. Fred Duffy, P.G.
Underground Injection Control Program
Waste Permits Division
Texas Commission on Environmental Quality
P.O. Box 13087, MC-130
Austin, Texas 78711-3087

RE: Permit UR02~~726~~ 2827 Kingsville Dome Project
Renewal Application

Dear Mr. Duffy:

Pursuant to the required September 30 submission date, enclosed is URI, Inc.'s Application and Technical Report for the subject permit renewal. A check for $165.00 is enclosed for the Application and Notice Fees.

Be advised that in the five years preceding the filing of this application, URI, Inc. has not been convicted of a State or Federal crime in which a violation of environmental law was an element of the crime.

If there are any questions, please do not hesitate to call me.

Sincerely,

Mark S. Pelizza
Sr. Vice President

Texas Commission on Environmental Quality

Application for Permit to Conduct In Situ Uranium Mining

I. General Information

A. Type of permit for Permit Number UR: 02827 (leave UR number blank for initial area permit number):

- ☐ Initial
- ☒ Renewal
- ☐ Major Amendment
- ☐ Minor Amendment
- ☐ Minor Modification
- ☐ Transfer

B. Aquifer Exemption

☐ Application is made for initial designation of an exempted aquifer to include all portions of the production zone planned to contain in situ uranium mining solutions.

☐ Application is pending Commission and EPA approval for initial designation of an exempted aquifer to include all portions of the production zone planned to contain in situ uranium mining solutions.

☒ Applicant plans to conduct in situ uranium mining under an existing designated exempted aquifer. Mine name or site name associated with existing exempted aquifer: Kingsville Dome

Application is made for amendment of an existing designated exempted aquifer for planned in situ uranium mining. Mine name or site name associated with existing exempted aquifer:_____

Specification of existing or requested exempted aquifer:
Aquifer or Formation Name: Goliad
Depth feet above/below mean sea level: ~ 420 to 810
Area acres: 2070 (Attach a map delineating any existing and requested exempted aquifer boundaries relative to lease boundaries, and existing and proposed permit area and production area boundaries with survey points and coordinate system.)
See Technical Report Attachment 6 and Attachment B of this Application.

C. Groundwater Conservation District (GCD) Information

GCD Name : _____
Address: _____
City, State and Zip:
Email: _____
Telephone Number:

Has the following information for an initial or expansion of area permit been provided to GCD in accordance with 30 TAC §331.223?

(1) Information regarding wells not recorded in the public record including but not limited to depth, completion method, completion interval, water quality information, lift method, and geophysical log in accordance with 30 TAC §331.223(a)(1)

☐ Yes ■ No

(2) A map with locations of all wells that are recorded in the public record and are inside the proposed permit area within one-quarter mile of the proposed permit area in accordance with 30 TAC §331.223(a)(2).

☐ Yes ■ No

(3) Pre-mining water quality information collected from wells registered in accordance with 30 TAC §331.223(a)(3) provided in Table 1.

☐ Yes ■ No

(4) Amount of water produced each month from each registered well in accordance with 30 TAC §331.223(a)(4).

☐ Yes ■ No

(5) Record of strata in accordance with 30 TAC §331.223(a)(5).

☐ Yes ■ No

D. Applicant (Individual, Corporation or Other Legal Entity) URI, Inc.

Address (Permanent Mailing Address): 405 S.H. 121 Bypass
City, State and Zip: Lewisville, Texas
Telephone Number: 972-219-3330

Mine Name: Kingsville Dome
County: Kleberg
Mine Mailing Address (if available): 641 FM1118

Ownership Status: URI, Inc.
Check one: ☐ Federal ☐ State ☒ Private ☐ Other Entity

If the application is submitted on behalf of a corporation or partnership, please identify the Charter Number as recorded with the Office of the Secretary of State for Texas.

(Charter Number) 0007495706

If the application is submitted by a person residing out of state or is submitted by a corporation or partnership, the applicant must name the Agent in Service or Agent of Service who is registered with the Texas Secretary of State's office and provide a complete mailing address for the agent. The agent must be a Texas resident.

Agent: _____

Address (Permanent Mailing Address): _____

City, State and Zip: _____

Telephone Number: _____

Indicate the ownership status of the facility:

Private:

- ☒ Corporation
- ☐ Partnership
- ☐ Proprietorship
- ☐ Nonprofit organization

Public:

- ☐ Military
- ☐ State
- ☐ Regional
- ☐ County
- ☐ Municipal
- ☐ Federal

Other (specify):_____

E. List those persons or firms authorized to act for the applicant during the processing of the permit application. Also indicate the capacity in which each person may represent the

applicant (engineering, geology, legal, etc.). The person listed first will be the primary recipient of correspondence regarding this application. Include the complete mailing addresses and phone numbers. Mark S. Pelizza; address and telephone above.

F. Specify the individual who will be responsible for causing notice to be published in the newspaper. Include the complete mailing address, telephone number, and fax number. Please provide an e-mail address as well, if available.
Mark S. Pelizza; address and telephone above. mspelizza@uraniumresources.com

G. For applications of new permits, renewals, and major amendments a copy of the administratively complete application must be made available at a public place in the county where the facility is located or proposed to be located for review and copying by the public. Identify the public place in the county (e.g. public library, county court house, city hall), including the address, where the application will be located. County Clerk's Office, Kleberg County Courthouse, 700 E. Kleberg Kingsville, Texas, 78363

H. If application is for renewal, amendment, modification, or transfer to an existing permit(s), please describe all requested permit changes and the reasons for the request.
Renewal. Restoration Range Table Update.

I. History of Permit Actions and Application Revisions
See Attachment A.
For amendment, modification, or transfer of a Class III area permit, information is needed to confirm the history of permit actions and revisions to the most recent complete permit application. For the time period since submittal of the most recent complete permit application (i.e., an application for a new well or renewal of an existing well), provide the following information:

1. A list of permit actions (major and minor amendments, minor modifications, etc.), including dates, that have been issued by the TCEQ since the date of issuance of a new permit or the most recent permit renewal; and

2. A list of submittal dates for the following activities that revised the application: Responses to Notices of Deficiency, major or minor amendment applications, minor modification requests, or requests for permit transfers, and any addenda or supplementary information that has been submitted in connection with a permitting action.

J. Applicant Compliance History
See Attachment A.
House Bill 2912, 77th Legislature, 2001, §4.01, amended Texas Water Code, Chapter 5, Texas Natural Resource Conservation Commission, by adding Subchapter Q, Performance-Based Regulation. New Subchapter Q of TWC, §5.753, Standard For Evaluating Compliance History, requires the Commission to "develop a uniform standard for evaluating compliance history." New 30 TAC Chapter 60 has been adopted to define the components of compliance history.

TWC, Subchapter Q, applies to programs under the jurisdiction of the Commission under TWC, Chapters 26 and 27, and THSC, Chapters 361, 382, and 401. HB 2912, §4.01, as it creates new TWC, §5.754(e), specifies that the agency will utilize compliance history when making decisions regarding: the issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit; enforcement; the use of announced investigations; and participation in innovative programs.

The compliance history period includes the five years prior to the date the permit application is received by the Executive Director; the five-year period preceding the date of initiating an enforcement action with an initial enforcement settlement offer or the filing date of an Executive Director's Preliminary Report (EDPR), whichever occurs first; for purposes of determining whether an announced investigation is appropriate, the five-

for purposes of determining whether an announced investigation is appropriate, the five-year period preceding an investigation; or the five years prior to the date the application for participation in an innovative program is received by the Executive Director. The compliance history period may be extended beyond the date the application for the permit or participation in an innovative program is received by the Executive Director, up through completion of review of the application.

For the five years preceding the filing date of this application, please submit a complete listing of all criminal convictions (i.e., State or Federal) of the owner, operator or applicant in which a violation of environmental law was an element of the crime. [30 TAC §60.2(c)(1)(E) and §60.2(c)(2)(F)] If there have been no such convictions then the application should state in a separate sentence for the owner applicant and operator the following:

> "In the five years preceding the filing of this application, the (applicant, owner, or operator respectively) _____ has not been convicted of a State or Federal crime in which a violation of environmental law was an element of the crime."

K. TCEQ Core Data Form

The TCEQ requires that a Core Data Form (Form 10400) be submitted as "Attachment A" on all incoming applications unless a Regulated Entity and Customer Reference Number has been issued by the TCEQ and no core data information has changed. If no core data information has changed and the TCEQ has issued an RN and CN for your facility, please state these numbers. For more information For more information, refer to the Core Data Form on the TCEQ site[5] or call (512) 239-1575. See Attachment F.

L. Public Interest Demonstration

Section 27.051 of the Texas Water Code (TWC) stipulates certain conditions that must exist for the Commission to grant an application and issue a permit. For all new applications, permit renewals, and permit amendments, submit as "Attachment ~~K~~"G" information addressing the following considerations:

1. That the use or installation of the injection well is in the public interest. [TWC §27.051(a)(1)]
2. That no existing rights, including, but not limited to, mineral rights, will be impaired. [TWC §27.051(a)(2)]
3. That, with proper safeguards, both ground and surface fresh water can be adequately protected from pollution. [TWC §27.051(a)(3)]
4. That the applicant has made a satisfactory showing of financial responsibility if required by Section 27.073 of this code. [TWC §27.051(a)(4)]
5. That the compliance history of the applicant and related entities is acceptable. [TWC §27.051(d)(1)]
6. Whether there is a practical, economic, and feasible alternative to an injection well reasonably available. [TWC §27.051(d)(2)]

M. For applications regarding new permits, renewals, and major amendments a copy of the administratively complete application must be made available at a public place in the county where the facility is located or proposed to be located for review and copying by

[5] http://www.tceq.texas.gov/permitting/central_registry/guidance.html

the public. Identify the public place in the county (e.g., public library, county court house, city hall), including the address, where the application will be located. This copy of the application must be updated as revisions to the application submitted to the TCEQ are made.

N. Facility Background Information [30 TAC §305.45(a)(7)]

Indicate (by listing the permit number(s) in the column below) all existing, pending, interim status, or permit-by-rule State and/or Federal permits, licenses or construction approvals which pertain to pollution control or industrial solid waste management, radioactive materials, or other activities conducted by your plant or at your location, or existing at a proposed plant or location. Complete each blank by entering the **permit number**, or the **date of application**, or "**none.**"

Relevant Program and/or Law	Permit Number or License	Government Agency*
Hazardous Waste Management Program under the Texas Solid Waste Disposal Act		
UIC Program under the Texas Injection Well Act	WDW247 & 248	TCEQ
NPDES Program under the Clean Water Act and Waste Discharge Program under the Texas Water Code, Chapter 26		
PSD Program under the Federal Clean Air Act		
Nonattainment Program under the Federal Clean Air Act		
National Emission Standards for Hazardous Pollutants (NESHAP) preconstruction approval under the Clean Air Act		
Ocean dumping permits under the Marine Protection Research and Sanctuaries Act		
Dredge or fill permits under the Federal Clean Water Act		
Licenses under the Texas Radiation Control Act	RW03653	TCEQ
Texas Solid Waste Disposal Act		
Texas Uranium Surface Mining and Reclamation Act		
Texas Surface Coal Mining and Reclamation Act		
Other relevant environmental permits/licenses		

*Use the following acronyms for each agency as shown below:
TCEQ = Texas Commission on Environmental Quality
RCT = Railroad Commission of Texas
TDH= Texas Department of Health
TDA= Texas Department of Agriculture
EPA= U.S. Environmental Protection Agency
CORPS= U.S. Army Corps of Engineers

O. Location

1. Give a description of the location of the facility site with respect to known or easily identifiable landmarks. Detail the access routes from the nearest U.S. or State Highway to the facility. Approximately 8 miles southeast of the City of Kingsville, 4 miles east of the town of Ricardo off FM118, Kleberg County Texas.

2. Is the facility located on Indian lands?

☐ Yes ■ No

3. Is the facility located within the Coastal Management Program boundary?

■ Yes ☐ No
For questions regarding the Coastal Management Program, please call (800) 998-4456 (within Texas) or (512) 463-5385.

4. Is the facility in an area in which the governing body of the county or municipality has prohibited the processing or disposal of municipal hazardous waste or industrial solid waste? (See Texas Health and Safety Code (THSC) §363.112.)

☐ Yes ■ No
If yes, please provide a copy of the ordinance or order.

5. Legal Description of Facility

Submit as "Attachment B" a legal description(s) of the tract or tracts of land upon which the waste management operations referred to in this permit application occur or will occur. Although a legal description is required, a metes and bounds description is not necessary for urban sites with appropriate "lot" description(s).

6. Submit as "Attachment C" a drawn-to-scale topographic map (or other map if a topographic map is unavailable) of the facility and area extending one mile beyond the facility boundaries. Maps must be prepared by a licensed professional engineer or a registered surveyor. Maps must be of material suitable for a permanent record, and be on sheets 8½ inches by 14 inches or folded to that size, and be on a scale of not less than one inch equals one mile. The scale should be adequate to depict the following features:

   a) the approximate lease boundaries of the facility (described in Section I.J.) and within these boundaries, the location of all injection wells; each depicted area should be labeled to identify the well(s) and the well status (active, inactive, or proposed); areal size in acres should be given;

   b) the proposed area permit and/or PAA boundaries, with acreage indicated. (The area permit boundary may be defined by the operator to coincide with or be within the lease ownership boundaries.);

   c) the location of the proposed production and disposal facilities; and

   d) all wells (water, oil, gas, disposal, etc.), springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant in the Area of Review within one-quarter mile past the proposed area permit boundary, and the purpose for which each water well is used [e.g., domestic, livestock, agricultural, industrial, etc. refer to 30 TAC §305.45(a)(6)].

2. Is the facility located on Indian lands?

☐ Yes ■ No

3. Is the facility located within the Coastal Management Program boundary?

☐ Yes ■ No
For questions regarding the Coastal Management Program, please call (800) 998-4456 (within Texas) or (512) 463-5385.

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c) the location of the proposed production and disposal facilities; and

d) all wells (water, oil, gas, disposal, etc.), springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant in the Area of Review within one-quarter mile past the proposed area permit boundary, and the purpose for which each water well is used [e.g., domestic, livestock, agricultural, industrial, etc. refer to 30 TAC §305.45(a)(6)].

Class III UIC Permit Application
Signature Page

I (Signatory Name) Mark S. Pelizza (Title) Senior Vice President certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature _____ Date 9/24/2012

See 30 TAC §305.44 for who must sign. Hazardous waste permits must be signed by both the owner and operator of the facility.

To be Completed by the Applicant if the Application is Signed by an Agent for the Applicant

I (Signatory Name), _____ (Title) _____ hereby designate (Agent Name and Title) _____ as my agent and hereby authorize said agent to sign any application, submit additional information as may be requested by the Commission, and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my agent in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

Signature _____ Date _____

(Note: Application Must Bear Signature and Seal of Notary Public)

STATE OF TEXAS §
COUNTY OF Denton §

SUBSCRIBED AND SWORN to before me by the said Mark S. Pelizza
on this 24th day of September, 2012
My commission expires on the 8th day of Feb, 2016

Robin R. Werner
Notary Public in and for the State of Texas

ROBIN R. WERNER NOTARY PUBLIC STATE OF TEXAS 02-08-2016

II. Information Required To Provide Notice

Submit as "Attachment D" the following lists of landowners and mineral owners, cross-referenced to a map (See Figure 1). In accordance with 30 TAC §39.405(b), please also submit this mailing list electronically, in MS Word. The electronic list must contain only the name, mailing address, city, state, and zip code with no reference to the lot number or lot location. The list should contain 30 names, addresses, etc. (10 per column) per page. Each name and address must be typed in the format that meets the United States Postal Service (USPS) requirements for machine readability. The letters in the name and address must be capitalized, contain no punctuation, and the two-character abbreviation must be used for the state. Examples of addresses using the USPS format may be found in this application form (see pages 1, 3, and 22). Contact the USPS for further instructions on formatting addresses for machine readability.

Alternatively, the applicant may elect to submit pre-printed mailing labels of this mailing list with the application. If you wish to provide the list on printed labels, please use sheets of labels that have 30 labels to a page (10 labels per column). Please provide **four complete sets of labels** of the adjacent landowners and mineral owners list.

A. Identify and provide a complete mailing address for all landowners of tracts of land adjacent to the proposed area permit and/or PAA and other nearby landowners who might consider themselves affected by the activities described in the application.
See Attachment D. Mailing List and Identification Map.

B. Identify and provide a complete mailing address for all persons who own mineral rights underlying the existing or proposed area permit and underlying the tracts of land adjacent to the property on which the existing or proposed area permit is or will be located as required by 30 TAC §39.651. If the name(s) submitted represents less than 100% mineral ownership, specify the total percentage owned by all persons identified.
See Attachment D. Mailing List and Identification Map.

C. If the adjacent property ownership or mineral right ownership lists show the State of Texas to be an adjacent landowner and/or mineral rights owner underlying the specified area, as defined by 30 TAC §331.2, your application may affect lands dedicated to the permanent school fund. Refer to Texas Water Code §5.115. To determine whether lands dedicated to the permanent school fund are affected, you may submit a request which includes the property location to the General Land Office at the following address:

General Land Office
Deputy Commissioner of Asset Acquisition
Steven F Austin Bldg
1700 N Congress
Austin Texas 78701

If it is determined that your application may affect lands dedicated to the permanent school fund, your application must include the following information:

1. state the location of the permanent school fund land to be affected; and
2. describe any foreseeable impact or effect of the proposed permitted action on permanent school fund land.

A formal action or ruling by the Commission on an application affecting permanent school fund land that is made without the notice required by the above-referenced rule is voidable by the School Land Board as to any permanent school fund lands affected by the

action or ruling. [Texas Water Code §5.115(g)]

A. Provide the name and mailing address for the State Senator and State Representative in the district in which the well is or will be located. Either local district addresses or capitol addresses are acceptable. [30 TAC §39.651(c)(1)]
See Attachment D. Mailing List and Identification Map.

B. Provide the name and mailing address of the mayor and health authority of the municipality in whose territorial limits or extraterritorial jurisdiction the well is or will be located, and also the county judge and the health authority of the county in which the facility is located. [30 TAC §39.651(c)(4)]
See Attachment D. Mailing List and Identification Map.

C. Bilingual Notice Instructions. For certain permit applications, public notice in an alternate language is required. If an elementary school or middle school nearest to the facility offers a bilingual program, notice may be required to be published in an alternative language. The Texas Education Code, upon which the TCEQ alternative language notice requirements are based, requires a bilingual education program for an entire school district should the requisite alternative language speaking student population exist. However, there may not be any bilingual-speaking students at a particular school within a district which is required to offer the bilingual education program. For this reason, the requirement to publish notice in an alternative language is triggered if the nearest elementary or middle school, as part of a larger school district, is required to make a bilingual education program available to qualifying students and either the school has students enrolled at such a program on-site, or has students who attend such a program at another location to satisfy the school's obligation to provide such a program.

If it is determined that a bilingual notice is required, the applicant is responsible for ensuring that the publication in the alternate language is complete and accurate in that language. Electronic versions of the Spanish template examples are available from the TCEQ to help the applicant complete the publication in the alternative language. [30 TAC §39.405(h)]

Bilingual notice confirmation for this application

1. Is a bilingual program required by the Texas Education Code in the school district where the facility is located?

   ☐ Yes ☐ No
   (If **no**, alternative language notice publication not required)

2. **If yes** to question 1, are students enrolled in a bilingual education program at either the elementary school or the middle school nearest to the facility?

   ☐ Yes ☐ No
   (**If yes** to questions 1 and 2, alternative language publication is required; If **no** to question 2, then consider the next question)

3. **If yes** to question 1, are there students enrolled at either the elementary school or the middle school nearest to the facility who attend a bilingual education program at another location?

   ☐ Yes ☐ No
   (**If yes** to questions 1 and 3, alternative language publication is required; If **no** to question 3, then consider the next question)

4. **If yes** to question 1, would either the elementary school or the middle school

nearest to the facility be required to provide a bilingual education program but for the fact that it secured a waiver from this requirement, as available under 19 TAC §89.1205(g)?

☐ Yes ☐ No
(**If yes** to questions 1 and 4, alternative language publication is required; If **No** to question 4, alternative language notice publication not required)

If a bilingual education program(s) is provided by either the elementary school or the middle school nearest to the facility, which language(s) is required by the bilingual program? Spanish

III. Financial Assurance

Submit as "Attachment E", information regarding the financial assurance plan as referenced below.

A. Financial Assurance Information Requirements for all Applicants [30 TAC §§331.142-144, Subchapter I, and 30 TAC Chapter 37 Subchapter Q "Financial Assurance for Underground Injection Control Wells"]

1. Financial Assurance for Well Closure

Please refer to 30 TAC §§331.142-144 for the financial assurance requirements for well closure, and provide a signed statement from an authorized signatory per 30 TAC §305.44 regarding how the owner or operator will comply with this provision. The method of calculation of well closure costs used by UIC staff and an explanation of the costs are available on request from the UIC Permits Team at Mail Code 233 at the TCEQ address.

2. Financial Assurance for Groundwater Restoration

Please refer to 30 TAC §§331.143 for the financial assurance requirements for groundwater restoration and provided a signed statement regarding how the owner or operator will comply with this provision. The method of calculation of groundwater restoration costs used by UIC staff and an explanation of the costs are available on request from the UIC Permits Team at Mail Code 233 at the TCEQ address.

IV. Technical Report

A. Technical Report Signature Page , and

B. Technical Report for In Situ Uranium Mining Class III Injection Wells

Attachment A
Permit History and Compliance Summary

URI Kingsville Dome Facility
Timeline of Selected Regulatory Events

July, 1986	Contested case hearing on original application for URO-2827 which would authorize all Class III wells in the to be completed in the injection interval between -510 and -710 ft msl within the 547 acre permit area.
12/30/86	**TCEQ first issued URO-2827 (no expiry date) permitting all wells in the mine zone interval between -510 and -710 ft. msl over the 547 acres of permit area and issuing TWC's Aquifer Exemption for the mine zone in thepermit area.** **TCEQ issued WDW-247 & WDW-248 (for 10 yrs. or until revoked or amended; but, subject to timely renewal under Tex. Gov. Code § 2001.054(b),)**
5/15/87	USEPA issued its Aquifer Exemption for KVD mining in mine zone interval (-510 to -710 ft. msl) in the Goliad Aquifer within the 547 acre permit area of URO-2827
6/1/87	TCEQ issued order designating an exempt aquifer in Kleberg County, Texas corresponding to the 547 acre permit area and designated mine zone interval of URO-2827
4/12/88	TCEQ issued PAA 1 (URO-2827-011)
6/7/88	USEPA changed name on NPDES permits from Uranium Resources, Inc. to URI, Inc.
May-Aug., 1989	Contested case hearing held May 17, June 15-16, July 24-28 and 31, and August 1-2, 1989 on URI application to amend URO-2827
12/20/89	**TCEQ issued amended URO-2827 (no expiry date) covering all Class III wells completed within mine zone interval (-420 to -810 ft. msl) in the 2,135 acre permit area and issuing TWC's Aquifer Exemption for the same mine zone interval and permit area.** This order and the permit it determined to issue remain in force and effect today and govern all production area requests made under the permit.
1/11/90	TCEQ issued amended permit URO 2827 pursuant to its 12/20/89 order
6/28/90	TCEQ issued PAA 2 (URO-2827-021)
7/1/94	USEPA extended coverage of its aquifer exemption to conform to the mine zone interval in the Upper Goliad formation and 2,135 acres of the permit area of the newly amended URO-2827.
7/1/97	TCEQ received URI's original application for PAA 3
7/17/97	Application for issuance of PAA 3 declared administratively complete
1/21/98	**1st TCEQ agenda meeting on PAA 3; all hearing requests denied, PAA 3 granted**
2/6/98	TCEQ ORDER issued denying hearing requests & granting PAA 3
4/22/98	**2nd TCEQ agenda meeting on PAA 3** considering pending motions, including motions for rehearing

4/27/98	**TCEQ ORDER granting the motion to strike filed by URI, granting in part and denying in part the motion filed by URI for rehearing; denying motion for rehearing filed jointly by Kleberg County & STOP; and issuing an amended URO 2827-031 (PAA-3)**
6/03/98	STOP and Kleberg County filed ***South Texas Opposes Pollution and Kleberg County Commissioners Court v. TNRCC and URI, Inc.*, No. 98-05977, 53d Dist Ct. Travis County** (later consolidated with 6/24/98 filing)
06/09/98	Kleberg County and STOP file Second Motion for Rehearing
6/17/98	**3rd TCEQ agenda meeting on PAA 3: Kleberg County & STOP 2d Motion for Rehearing Denied**
6/24/98	STOP & Kleberg County filed ***South Texas Opposes Pollution and Kleberg County Commissioners Court v. Texas Natural Resource Conservation Commission and URI, Inc.*, No. 98-06769, 201st Dist. Ct, Travis County** seeking TRO and Declaratory Judgment
9/9/98	Applications for renewal of WDW-247 and WDW-248 declared administratively complete
8/19/99 ?	KVD PAA 3 put into "standby status" because of depressed world prices
2/29/00	Order in ***South Texas Opposes Pollution and Kleberg County Commissioners Court v. Texas Natural Resource Conservation Commission and URI, Inc.*, No. 98-06769, 201st Dist. Ct, Travis County** reversed TNRCC issuance of PAA 3, remanded PAA 3 to TCEQ
11/15/00	**4th TCEQ agenda meeting on URI PAA 3:** Commission remands URI application for PAA-3 back to ED for updating, re-noticing
7/14/04	**5th TCEQ agenda meeting on PAA 3:** PAA 3 matter referred to SOAH; renewal of WDW-247 and WDW-248 referred to SOAH to be joined with PAA 3 matter.
12/3/04	Effective date of settlement between Kleberg County and URI, Inc. regarding all matters pending in SOAH docket no. 582-05-1552
3/10/06	6th TCEQ agenda meeting on PAA 3--TCEQ order authorizing issuance of KVD PAA 3 and other permits
4/4/06	STOP and H.Garcia Motion for Rehearing filed
5/9/06	KVD PAA 3 signed
5/31/06	Garcia v. TCEQ (judicial review of PAA 3 issuance) original petition filed
6/1/06	STOP v. TCEQ (judicial review of PAA 3 issuance) orig petition filed
7/17/06	URI intervention in Garcia v. TCEQ and STOP v. TCEQ
8/3/06	URI letter to Kleberg County Judge re URI intent to resume PAA 3 mining
8/8/07	KVD PAA1 minor amendt signed
9/28/07	URI files suit for DJ against Kleberg County re PAA 3 mining

Compliance Table 2007-2011

Date	Agency / Division	Site	Permit or Lic.	#	Citation	Alleged NOV	Corrective Action	State Acknowledgement	Alleged AOC
March 13-15, 2007	TCEQ / UIC	ROS	UR02880	1	30TAC 331.82(a)	Class III wells were not cemented and/or capped as required	Wells capped and cemented as required	Correspondance dated June 15,2007	
				2	Prov. VII(A)(2)				
				3	Prov. V(E)(1)	Pressure gauges not maintained in working condition nor marked with maximum allowable injection pressure	Corrected during investigation	Corrected during investigation	
				4	30TAC 331.104(b)	Water samples were not analyzed according to accepted methods as stated in the permit	open	open	
				5	Prov. VII(A)(2)				
				6	Prov. V(I)(2)				
March 13-15, 2007	TCEQ/UIC	ROS	WDW-250	1	Prov. XI.C.	Transmission lines, injection pumps, filters, and monitoring equipment were not inspected daily, as required.	Inspect daily	Correspondance dated June 15,2007	The annulus level spikes and drops on 10/23-25/2006
				2	Prov. XI.D.	Pond liners were not inspected daily, as required.	Inspect daily	Correspondance dated June 15,2007	Provided a copy of the page with regulations pertaining to the Waste Analysis Plan to URI staff and requested URI to ensure compliance with this section.
				3	Prov.XI.E	Ponds leak detection systems were not inspected weekly, as required.	Inspect daily	Correspondance dated June 15,2007	Provide calibration records of for the flow rate transmitter for 1Q2006 through 4Q2006
				4	Prov. XI.G.	Ponds freeboard were not inspected daily, as required.	Inspect daily	Correspondance dated June 15,2007	
				5	Prov.XI.H	Ponds dikes were not inspected daily, as required.	Inspect daily	Correspondance dated June 15,2007	
March 16, 2007	TCEQ / UIC	KVD	WDW-248	1	30 TAC 331.63 (d)	Various records of Differential pressure drops between the annulus and injection below 100psi between 1/24/2006 - 2/13/2006	No fluid was pumped during the differential pressure drops	Correspondance dated June 13, 2007	Incorrect anndlus differential pressure values reported in the 1Q2006 Quarterly Injection Report
				2	Prov. VII(E)				Various records of Differential pressure drops between the annulus and injection below 100psi between 1/24/2006–2/13/2006
				3	30 TAC 331.63 (f)	Flowrate transmitter not calibrated	Flowrate transmitters cannot be field calibrated		
				4	Prov. XII(E)(2)				
June 7, 2007	DSHS / RMD	ROS	RML L03653	1	Condition 38.E	Contaminated waste tanks and pipe were not stored on a curbed concrete pad or other impermeable surface	Area was surveyed for item with contamination which were removed as necessary		
				2	Condition 38.E	55-gallon drums on curbed concrete pad not sealed tightly to limit horizontal and/or vertical migration of contaminants	Horizontal and/or vertical migration of contaminants are limited by the curbed concrete pad		
				3	Condition 33.E	Monthly Alpha frisk audits were performed by person other than the RSO	Audits were performed by the RSO designee		
July 2-3, 2007	TCEQ / UIC	VAS	WDW-185, UR03050	1			Records are available onsite		Records need to be available onsite
				2					Ensure that the methods/procedures specified in the EPA Manual are used for parameters required by the permit for Sample Analysis
				3					SOP for conducting Class III MIT
				4					SOP for conducting groundwater sampling

March 11-13, 2008	TCEQ / UIC	KVD	UR02827	1	30 TAC 331.82(a)	Wells were not capped as required	Corrected during investigation	Correspondence dated October 13, 2008	One-gallon containers of what appeared to be oil and five-gallon containers or what appeared to be turpentine
				2	Prov. VI(A)				Several five-gallon white containers
				3			Corrected during investigation	Correspondence dated October 13, 2008	Elevated radiation levels detected on materials not stored on a concrete pad or other impermeable surface
				4					Need for better management/houskeeping practices
				5			Examination found no significant Differences	Correspondence dated October 13, 2008	URI should examine lab procedures and permit for differences
May 22, 2008	TCEQ / UIC	VAS	WDW-185, UR03050	1			Release criteria for soil is met as required	Correspondence dated October 13, 2008	Mud and water from well workover of production well 7347 in WF7 sent to pit
				2			Corrected during investigation	Corrected during investigation	Commented on the need for closing both ends of the pipes to prevent contaminated pipe scale from falling on the ground surface.
				3					Elevated radiatoin levels detected from pipes in a earthened bermed and lined area west of the office building
				4					Pumps, well heads, flow meters, and pipes behind mechanic shop. Better management/houskeeping practice.
				5					Super-Sack bags stored in sunlight
				6	30TAC 331.102				Ensure mining solution is confined to the production zone
				7					Compare current test procedures with the ones required by the permit
May 21-23, 2008	TCEQ/UIC	ROS	UR02880	1					Super-Sack bags stored in sunlight
				2					Written description of a plan with respect to the South Pond C
				3			Corrected during investigation	Corrected during investigation	Soil/dirt, grease/oil nails and other debris were observed on north pond liner.
				4					Hydrochloric Acid tank improperly labeled
				5			Corrected during investigation	Corrected during investigation	Oil/grease on the ground near the bulk solid byproduct material storage area by center pond
				6					Need for better management/houskeeping practices
				7	30 TAC 331.102				Ensure mining solution is confined to the production zone
				8					Compare current test procedures with the ones required by the permit
September 16, 2008	DSHS / RMD	VAS	RML L03653			None			
September 17, 2008	DSHS / RMD	ROS	RML L03653			None			
November 12, 2008	DSHS / RMD	KVD	RML L03653			None			
March 18-19, 2009	TCEQ / UIC & RMD	KVD	UR02827	1					Various concerns relating to MW reports for 1Q2008 through 4Q2008 and 3Q2007 through 4Q2007
				2					
				3					
			WDW-248	1	Prov. XI.C.	Various site inspection records required by the RML were missing on various dates in 2007, 2008, and 2009	Items reviewed with managers and operators. Disciplinary action was carried out		
				2	Prov. XI.D.				
				3	Prov. XI.G.				
				4	Prov. VIII.G.				

			RML R03653	1		Various site inspection records required by the RML were missing on various dates in 2007, 2008, and 2009	Items reviewed with managers and operators. Disciplinary action was carried out		
February 3, 2010	DSHS	KVD	L06158	None					None
March 2, 2010	TCEQ / UIC & RMD	ROS	R03653, WDW-250, UR02880	None					None
March 17, 2010	TCEQ / UIC & RMD	KVD	R03653	1	L.C. 27.A	Items with elevated radiation reading were not stored according to the license condition 27	Items were addressed immediately, Items to dispose of unwanted materials are ongoing	Correspondence dated January 6, 2011	Items with elevated radiation readings were found in a tool room and a storage conex
				2	L.C. 27.B				
				3			Cleaned Immediately	Correspondence dated January 6, 2011	An oil stained cloth was found on the ground
June 22, 2010	DSHS	ROS	L06158	None					None
July 6, 2010	TCEQ / UIC & RMD	KVD	R03653, WDW-247, WDW-248, UR02827	None					None
July 7-8, 2010	TCEQ / UIC & RMD	VAS	R03653, WDW-185, UR03050	None					None
August 13, 2010	TCEQ / UIC	KVD	WDW-248, UR02827	None					None
August 11, 2010	TCEQ / UIC	VAS	WDW-185, UR03050	None					None
March 15-18, 2011	TCEQ / UIC & RMD	ROS	R03653	1	L.C. 13	Evidence of livestock in WF-8	Fences were repaired		
				2	L.C. 22.A	Removable Alpha Surveys sumpinmasted with Fixed Alpha surveys	Perform removable alpha surveys		
				3	L.C. 25.B.(1)	Items to be inspected were pre-printed with "OK"	Form revised		
				4	L.C. 25.B.(2)				
				5	L.C. 25.B.(3)	Semi-monthly inspections of MW not recorded	Record MW inspections		
				6	30 TAC 331.403	Posting required not found	Postings are posted		
				7	L.C. 30	The Licensee did not comply with all license conditions			
			WDW-250	None					None
			UR02880	None					None
June 23-24, 2011	TCEQ / UIC & RMD	KVD	R03653, WDW-248, UR02827	None					None

Attachment B
Legal Description

PERMIT UR02827 LEGAL DESCRIPTION – KINGSVILLE DOME
KLEBERT TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS

BLOCK # 41	FARM LOT	DESCRIPTION
	11-16	All (240 acres)

BLOCK # 42	FARM LOT	DESCRIPTION
	7	S/2 (20 acres)
	8-10, 15, 16	All (200 acres)

BLOCK # 48	FARM LOT	DESCRIPTION
	1-10	All (400 acres)

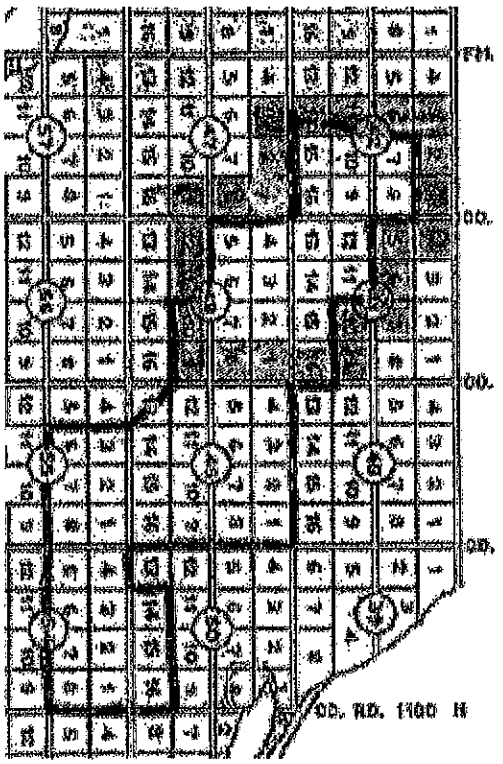
BLOCK # 49	FARM LOT	DESCRIPTION
	2	NW/4 (10 acres)
	3-12	All (400 acres)
	13	Partial (20 acres)
	14-16	All (120 acres)

BLOCK # 50	FARM LOT	DESCRIPTION
	14-16	All (120 acres)

BLOCK # 54	FARM LOT	DESCRIPTION
	1-8	All (320 acres)

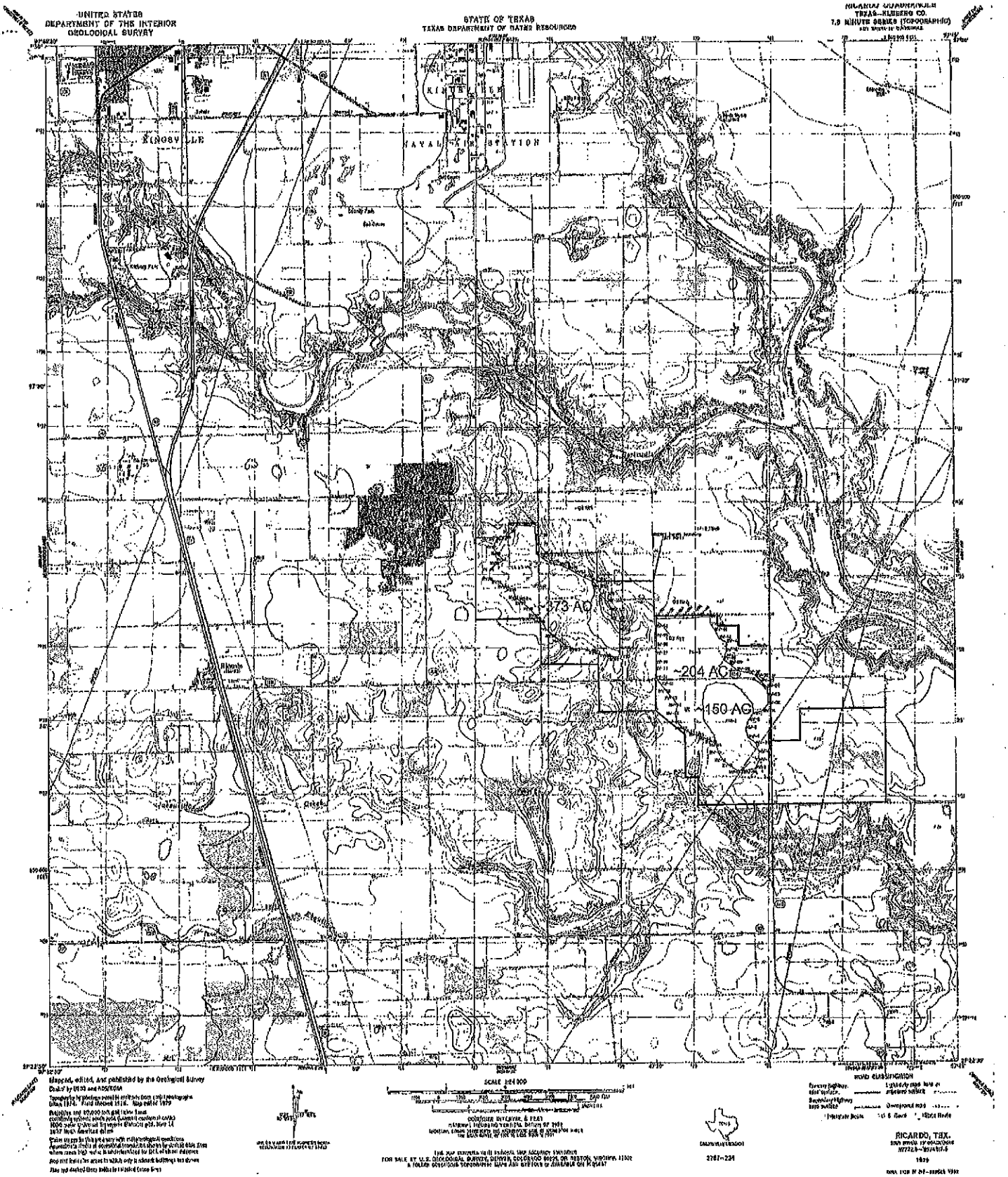
BLOCK # 55	FARM LOT	DESCRIPTION
	1-3	All (120 acres)
	6	W/2 (20 acres)
	7,8	All (80 acres)

PERMIT UR02827 LEGAL DESCRIPTION – KINGSVILLE DOME
KLEBERT TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS

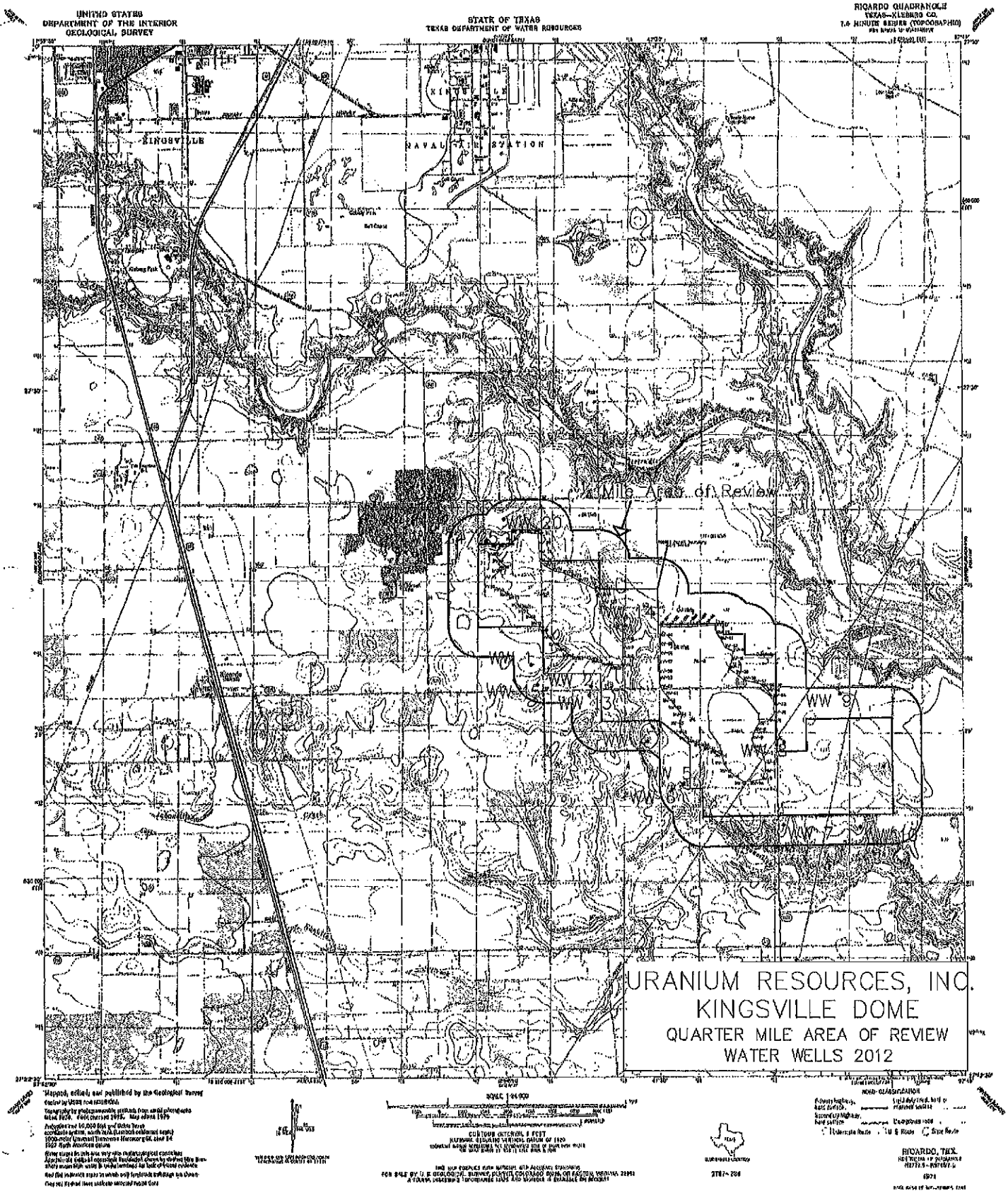


Attachment C
Topographic Map

TOPOGRAPHIC MAP WITH PERMIT AREA AND PRODUCTION AREAS



TOPOGRAPHIC MAP WITH WATER WELLS IN THE AREA OF REVIEW.



Attachment D
Mailing List for Notice

ELECTED OFFICIAL MAILING ADDRESSES

State Senator and State Representative

Senator Eddie A. Lucio
7 North Park Plaza
Brownsville TX 785211428

Representative Jose Manuel Lozano
727 Arroyo Drive
Kingsville TX 783637416

County Judge, Mayor, Health Authority

Juan Escobar
County Judge
P. O. Box 752
Kingsville TX 78364

Mayor Sam Fugate
Kingsville City Hall
200 E. Kleberg Ave.
Kingsville, TX 78363

Yolanda Cadena
Health Director
Kingsville/Kleberg Health Department
P.O. Box 1458
Kingsville, TX 78364

MINERAL OWNERS ADJACENT – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY SUBDIVISION
KLEBERG COUNTY, TEXAS
INFORMATION FROM TAX ROLLS DATED 2012

The following list represents mineral owners immediately adjacent to URI, Inc. Permit Area at Kingsville Dome. The lands covered in this search cover at least one 40 acre farm lot outside the boundary and in many cases include more. There are some duplications with mineral owners within the permit boundary, but all have been included here in the interest of completeness.

Gene M. Jones
P. O. Drawer A
Kingsville, TX 78364

Herman H Ohlenbusch
P. O. Box 5330
Kingsville, TX 78364

Leonard Huff, Jr.
Rt. 1, Box 37
Riviera, TX 78363

Baptist Foundation of Texas
1601 Elm St, Suite 1700
Dallas, TX 75201-7241

Dale Cumberland
1421 Sleepy Hollow Lane
New Braunfels, TX 78130

Sharon Robertson
640 East FM 1118
Kingsville, TX 78363

William W. Bippert, Jr.
679 E.CR 2160
Kingsville, TX 78363

Ernest Bippert, Jr.
290 N CR 1100
Kingsville, TX 78363

MINERAL OWNERS ADJACENT – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY SUBDIVISION
KLEBERG COUNTY, TEXAS
INFORMATION FROM TAX ROLLS DATED 2012

Iva C. Burris Trust
421 West CR 2140
Kingsville, TX 78363

M. E. May
Box 905
Riviera, TX 78379

Jerry D. Malin
RT 1, Box 3
Riviera, TX 78379

Charles W. Muil, Jr.
811 North Elm Street
Sherman, TX 75090

King Ranch
P. O. Box 1090
Kingsville TX 78364

Frank Williams
663 East CR 2180
Kingsville, TX 78363

Anselma P. Moreno
1298 E. Johnson
Hemet, CA 92343

Arturo Moreno
3819 Pettus Dr.
San Antonio, TX 78228

Juan L. Garcia
1505 E Santa Gertrudis
Kingsville, TX 78363

Patricio Perez Estate
P. O. Box 110
Kingsville, TX 78363

Sirildo Perez
% Domingo Perez Jr.
106 East FM 1118
Kingsville, TX 78363

MINERAL OWNERS ADJACENT – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY SUBDIVISION
KLEBERG COUNTY, TEXAS
INFORMATION FROM TAX ROLLS DATED 2012

Faustino S. Perez
118 W. Chavéz
Kingsville, TX 78363

Juanita S. Perez
% Teresa P Jimenez, Guardian
1116 E. Doddridge
Kingsville, TX 78363

Ricardo S. Perez
104 W Chavez Ave
Kingsville, TX 78363

Manuel S. Perez, Jr.
10514 Norvec
Houston, TX 77029

Raul Perez
15403 Tomasa Street
Sugar Land, TX 77478

Jose and Dolores Estate
% David H. Perez
P. O. Box 851
Kingsville, TX 78363

Ascension Garcia
1503 Santa Gertrudis
Kingsville, TX 78363

Francisca P Vela Estate
% Filberto Vela
P. O. Bo. 1274
Cashion, AZ 85329

Domingo Perez
619 East CR 2180
Kingsville, TX 78363

Carlos Ortegon
722 East FM 1118
Kingsville, TX 78363

MINERAL OWNERS ADJACENT – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY SUBDIVISION
KLEBERG COUNTY, TEXAS
INFORMATION FROM TAX ROLLS DATED 2012

Carol A Radford
218 North CR 1080
Kingsville, TX 78363

Steve Dietz
269 N CR 1080
Kingsville, TX 78363

Stanley Dietz
11244 Woodridge Bluff
San Antonio, TX 78249

Antonette Beakey
2720 S. W. Park Terrace
Albany, OR 97321

Gary Underbrink
439 East FM 1118
Kingsville, TX 78363

Dale Cumberland
1421 Sleepy Hollow
New Braunfels, TX 78130

John A Cumberland
378 E FM 1118
Kingsville, TX 78363

Oletha Cumberland
440 East FM 1118
Kingsville, TX 78363

Clyde M. Allen
P. O. Box 1330
Kingsville, TX 78363

Joyce Allen Baker
10507 Pinedale
San Antonio, TX 78230

Jane Allen Lamb
% Tom Lamb
2555 Ashley
Beaumont, TX 77702

MINERAL OWNERS ADJACENT – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY SUBDIVISION
KLEBERG COUNTY, TEXAS
INFORMATION FROM TAX ROLLS DATED 2012

Y. G. Garcia
309 Billy Evans
Kingsville, TX 78363

Nazario H. Martinez
424 Garcia Hill Road
Kingsville, TX 78363

Fidel Garcia Life Estate
% Humberto Garcia
418 Garcia Hill Road
Kingsville, TX 78363

Roberto Garcia
505 East Henrietta
Kingsville TX 78363

Carlos Garcia
505 East Henrietta
Kingsville, TX 78363

Ricardo Garcia
203 East Corral
Kingsville, TX 78363

Eduardo G. Garcia
418 Garcia Hill Road
Kingsville, TX 78363

Angelica Garza
% Tomas Garza Executor
318 CR 2140
Kingsville, TX 78363

Hermila Garcia
418 Garcia Hill Road
Kingsville, TX 78363

Marquetta Seagraves
3703 NE 143rd
Oklahoma City, OK 73110

MINERAL OWNERS ADJACENT – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY SUBDIVISION
KLEBERG COUNTY, TEXAS
INFORMATION FROM TAX ROLLS DATED 2012

Mark Hanson
2016 Spicewood Rd
Bedford, TX 76021

MINERAL OWNERS ADJACENT – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY SUBDIVISION
KLEBERG COUNTY, TEXAS
INFORMATION FROM TAX ROLLS DATED 2012

Ruth A. O'Neil
8708 Zircon Drive SW
Tacoma, WA 98498

Joe W. Durkee, Jr.
4312 Belaire Drive, South unit 106E
Fort Worth, TX 76109

Cara Sims
P. O. Box 4041
Memphis, TN 38174

George C. Darr Estate
% Marjorie Darr, Executrix
411 Trellis Court
Lincoln, CA 95648

Elouise McLaughlin
303 Calle Descanso
San Clemente, CA 92673

Elizabeth Ann Cadamy
2724 Chaucer
Oklahoma City, OK 73120

Eleuterio L. Saenz
148 East CR 2170
Kigsville, TX 78363

Clark C. Flato
P. O. Box 1999
Corpus Christi, TX 78403

William R. Flato
11931 Drexel Hill
Houston, TX 77077

Sandra Kinman
2703 Cavileer Ave.
Austin, TX 78757

Robert L. Tracy
1901 Calcote Road
Kerrville, TX 78028

MINERAL OWNERS ADJACENT – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY SUBDIVISION
KLEBERG COUNTY, TEXAS
INFORMATION FROM TAX ROLLS DATED 2012

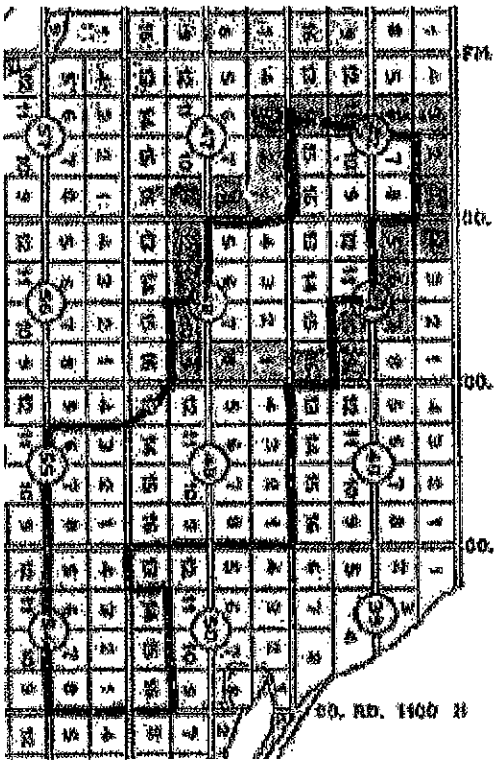
Dickson C. Flato
#6 Claridge Court
Conroe, TX 77304

David O. Rosse
1102 Kathleen
Kingsville, TX 78363

Mrs. O. D. Rosse Life Estate
P. O. Box 1231
Kingsville, TX 78363

James M. Talbert
366 FM 1118
Kingsville, TX 78363

PERMIT UR02827 LEGAL DESCRIPTION – KINGSVILLE DOME
KLEBERT TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS



SURFACE OWNERS – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS
Information From Tax Rolls dated 2012

BLOCK # 35

NAME	FARM LOT	DESCRIPTION
Bartow, James L. ETUX Patricia D. 474 N CR 1050 Kingsville, TX 78363-8865	Pt 13	
J W Johnson Family Trust EST Jimmy N. Wright ETAL (TR) 5391 Partridge Robstown, TX 78380-2037	Pt 1, 7, 8,	
Pinion, Gloria K. 8604B Woodstone Dr. Austin, TX 78757-7118	15	
Saenz,Victor S. ETUX Anna R. 593 N CR 1050 Kingsville, TX 78363-8834	4, N/2, 5,	
Schubert, Virginia EST 1120 Westway Ave. McAllen, TX 78501-4074	E/2, 6,	
Woelfel, Charles R. 1909 Debbie Drive Bryan, TX 77802-2006	W/2, 2, 3,	
Woelfel, Charles R. ETUX Ruth 1909 Debbie Drive Bryan, TX 77802-2006	E/2, 2,	
Woelfel, Stanley R. 202 E. CR 2120 Kingsville, TX 78363-8866	S/2, 5, W/2 6,	
Yeary, Michael D. ETUX Nancy 523 N CR 1020 Kingsville, TX 78363-2677	9, 10,	

SURFACE OWNERS – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS
Information From Tax Rolls dated 2012

BLOCK # 36

NAME	FARM LOT	DESCRIPTION
Alexander, Betty Ann 3104 4th Street Apt 201 Santa Monica, CA 90405-5452	7,	
Alvarez, Francisco ETUX Courtney Alvarez 2463 E FM 1717 Kingsville, TX 78363-8835	PT 3, 4,	
Barnett, Iva Lee Estate 906 Windswept Drive Conroe, TX 77301-1144	PT 1, 2,	
Bradshaw Trust % Roger A Pollard 412 E Trant Road Kingsville, TX 78363	PT 3, 4,	
City of Kingsville P O Box 1458 Kingsville, TX 78364-1458	10, 11, 12, 13, 14,	
Hartell, Charles ETUX Linda B Scott P O Box 171 Kingsville, TX 78364-0171	3, 4,	
Kelly, Ann M 2044 Thonig Road Houston, TX 77055-1710	PT 1, 2,	
Lawrence, Ruth Estate % David R Lawrence 242 CR 1605 Crockett, TX 75835-6714	PT 1, 2,	
Mendietta, Arturo Jr ETUX Juanita 2439 E FM 1717 Kingsville, TX 78363-8835	PT 3, 4,	

SURFACE OWNERS – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS
Information From Tax Rolls dated 2012

BLK #36 Continued

McCauley, David C ETUX Rita M 528 N FM 2619 Kingsville, TX 78363-8802	PT 3, 4,
Marshall, Linda R Clark % Billie J Wilson 1304 Academy Street San Marcos, TX 78666-3312	PT 1, 2,
Montemayor, Vidal Jr RR 1 Box 284T Edinburg, TX 78542-9803	PT 8
Nuckols, Mayzelle 803 E Main Strett Itasca, TX 76055-2407	PT 1, 2,
Pollard, Roger A ETUX Laura Case 412 E Trant Road Kingsville, TX 78363-7336	3, 4,
Powers, Madelyn AKA Madelyn Ahrens 534 N FM 2619 Kingsville, TX 78363-8802	PT 4
Darrin Radoford 218 N CR 1080 Kingsville, TX 78363-2623	PT 9, 15, 16,
Ramos, Alfonso R ETUX Evanita 2425 E FM 1717 Kingsville, TX 78363-8835	PT 3, 4,

SURFACE OWNERS – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS
Information From Tax Rolls dated 2012

BLK #36 Continued

Schubert, Virginia Estate 1120 Westway Avenue McAllen, TX 78501- 4074	7, PT 8
Smith, Clyde D. ETUX Genieve M 2445 E FM 1717 Kingsville, TX 78363-8835	PT 3, 4,
Wilson, Billie C 1304 Academy Street San Marcos, TX 78666-3312	PT 1, 2,
Woefel, Charles R 1919 Debbie Drive Bryan, TX 77802-2006	7, PT 8
Wright, Mary M Ayars P O Box 508 Kingsville, TX 78364-0508	PT 3, 4,
Wright, Thomas R P O Box 5622 Kingsville, TX 78364-5622	PT 4
Zepeda, Orlando ETUX Graciela Zepeda 2435 E FM 1717 Kingsville, TX 78363-8835	PT 3, 4,
Zimmerman, Roger 1302 Ball Street Galveston, TX 77550-5019	PT 8

SURFACE OWNERS – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS
Information From Tax Rolls dated 2012

BLOCK # 37

NAME	FARM LOT	DESCRIPTION
Bull, Brett N. ETUX Jana C. Bull 477 E CR 2110 Kingsville, TX 78363-8836	1, PT 2,	
Collins, Robert W. Irrev Trust Linda Baca (TR) P O Drawer H Kingsville, TX 78363	7, 8,	
Currie, Andrew II P O Box 5293 Kingsville, TX 78364-5293	Pt 4	
Best, Thomas A. ETUX Glenda 464 N Private Road 1077 Kingsville, TX 78363-9662	1, 4,	
Fugate, Nathan P. P O Box 1265 Kingsville, TX 78364-1265	W/2 of 3, Pt 4, 5, 6,	
Fugate, Sam ETUX Darlynn 413 Elizabeth Avenue Kingsville, TX 78363-6739	N/2 12,	
Roberts, Brad Shelton 534 N CR 1070 Kingsville, TX 78363-8803	W/2, E/2 of 3,	
TBGH Investment LTD 464 N Private Road 1077 Kingsville, TX 78364-9226	1, S/2, 2,3,4,12,13,	
Zimmerman, Laura V. EST Roger J. Zimmerman (IND EXEC) 1302 Ball Street Galveston, TX 77550-5019	4	

SURFACE OWNERS – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS
Information From Tax Rolls dated 2012

BLOCK # 38

NAME	FARM LOT	DESCRIPTION
Alaniz, Ruben IV P O Box 5425 Kingsville, TX 78364-5425	PT 16	
Bareis, Era Mae 562 N CR 1080 Kingsville, TX 78363-8839	4, 5, N/2, 6,	
Cannon, June 483 E CR 2090 Kingsville, TX 78363-8844	PT 16	
Carolyn Ann Reichardt Foose 3129 Hanover Street Dallas, TX 75225-7726	1, 2, 3, S/2, 6, 7-10, 11, PT 16, 20	
Griffin, Doris F 1319 E Huisache Avenue Kingsville, TX 78363-5919	PT 16	
Guerra, Maria G 4021 Wood River Drive #2 Corpus Christi, TX 78410-5646	PT 16	
Hoff, Susan P O Box 608 Runge, TX 78151-0608	PT 16	
Jackson, Lilly 101 W 6th Street Rockport, TX 78382-4425	PT 16	
Johnston, Kathryn Lynn 3447 River Path Street San Antonio, TX 78230-2527	PT 16	
Laws, James T 13969 Dasmarinas Drive Corpus Christi, TX 78418-6317	PT 16	

SURFACE OWNERS – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS
Information From Tax Rolls dated 2012

Laws, Francis H III 3316 Fairfield Pike Springfield, OH 45502-9701	PT 16
Lorfing, Judith A ETVIR James Timmerman 470 N CR 1080 Kingsville, TX 78363-8846	1-2, 3, 4, PT 5, 6-9, 11-13, PT 14, 15-16, PT 17, 18-20, 22, 24, PT 28, 29, 37-39
Morrow, Nancy 3606 Hunters Sound Street San Antonio, TX 78230-2830	PT 16
Nunez, Melissa Beasley % Judith A Timmerman 470 N CR 1080 Kingsville, TX 78363	PT 16
P'Pool, James A 2801 W Sunset Drive Apt 111 Orange, TX 77630-3161	PT 16
Robertson, James R 603 S Main Street Apt 2 Victoria, TX 77901-8934	PT 16
Sparks, Pauline Self ETAL Norma S Robertson 1802 Post Oak Road Kilgore, TX 75662-2098	PT 16
Reichardt, William D 6429 Tulip Lane Dallas, TX 75230-4148	1-3, S/2 6, 7-10, 11, 12-15, PT 16, 17-19, 20,
Roberts, John B 4400 Island Cove Austin, TX 78731-5141	PT 16
Roberts, Terry K 2209 Glenda Blvd Brenham, TX 77833-5808	PT 16
Welch, Ruth D 4600 Ocean Drive Apt 602 Corpus Christi, TX 78412-258	1-3, S/2 6, 7-10, 11, 12-15 PT 16, 17-19, 20,

SURFACE OWNERS – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS
Information From Tax Rolls dated 2012

BLOCK # 38

NAME	FARM LOT	DESCRIPTION
Jones, Gene M. P.O. Drawer A Kingsville, TX 78364	6	1-8
Ohlenbusch, Herman H. P.O. Box 5330 Kingsville, TX 78364	6	1-8
Nevilles, Devin W. 5458 River Trail Dr Robstown, TX 78380-5889	4, 5, 6, pt 7-8	

BLOCK # 40

NAME	FARM LOT	DESCRIPTION
Burris, Iva C. –Revocable The Living Trust 421 W. CR 2140 Kingsville, TX 78363	W/2, 9,10,11,12,13 14, 15, 16,	1,1,2,1,2,1.2,1,2 1,2,2,1,
Cadena, Arturo C. ETUX Yolanda B. 830 W. Kleberg Kingsville, TX 78363	9,10,15,16	1,1,1,1
Cumberland, John A. 378 E FM 1118 Kingsville, TX 78363-2617	W Pt of E225	1-8
Cumberland, Catherine R. P.O. Box 933 Kingsville, TX 78363	11, 13,	1, 1
Cumberland, Irene Mary 321 N. CR 1070 Kingsville, TX 78363	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,12,13,14,	2A, 2A, 1A,1A

SURFACE OWNERS – KINGSVILLE DOME AREA
KLEBERG TOWN & IMPROVEMENT COMPANY'S SUBDIVISION
KLEBERG COUNTY, TEXAS
Information From Tax Rolls dated 2012

Cumberland, Mike T. ETUX Tina 354 E. FM 1118 Kingsville, TX 78363	7	2
Cumberland, Oletha Fels 440 E. FM 1118 Kingsville, TX 78363	E120 11,12,13,14	1-8 1,2,2,1
Cumberland, W.E. Trust % Dale Cumberland Co. Trustee 1421 Sleeply Hollow New Braunfeles, TX 78130	11, 14,	2, 2,
Rosse, David O. 1102 Kathleen Kingsville, TX 78363	1, 2, 3,4,5,6 7, 8	1,2,3,1,1,1,1 1, 1,

BLOCK # 41

NAME	FARM LOT	DESCRIPTION
Cadena, Arturo C. Jr. P O Box 5190 Kingsville, TX 78364-5190	9,10,15,16	
Cumberland, John A. 378 E FM 1118 Kingsville, TX 78363-2617	W Pt 11-14	
Cumberland, Oletha Fels 440 E FM 1118 Kingsville, TX 78363-2622	W Pt E106.66 11-14	
Korges, Carl Raymond 428 Rosse Road Kingsville, TX 78363-8848	.51 ac out of 2	
Rosse, Mrs. O.D. (Life Estate) Charlie Rosse P O Box 1231 Kingsville, TX 78364-1231	1	

Rosse, David O. ETAL 430 Rosse Road Kingsville, TX 78363-8848	318.49 ac out of 1-8

BLOCK # 42

NAME	FARM LOT	DESCRIPTION
	SAENZ SUBDIVISION	
Veterans Land Board % Mario Martinez C/S 3401 Daffodil McAllen, TX 78501 – 5943	1	Lot 1
Saenz, Eleuterio L. 148 E. CR 2170 Kingsville, TX 78363	1	12, 3,4, 5, 6,
Ortegon, Carlos P. ETUX Subelda M. 426 Garcia Hill RD. Kingsville, TX 78363	2	1, 3,
Basaldua, Baldemar C. P O Box 1223 Kingsville, TX 78363 - 1223	1, 2,	
Basaldua, Nelda P O Box 1223 Kingsville, TX 78363	1, 2,	2, 4, 6,
Martinez, Nerio 419 Garcia Hill RD. Kingsville, TX 78363	2	5
Mercado, Laura Anita 1301 E Johnston Avenue Kingsville, TX 78363-5921	2	7
Martinez, Mario 3401 Daffodil McAllen, TX 78501	2	7

Ortegon, Subleda 426 Garcia Hill RD. Kingsville, TX 78363-8902	2	8
Saenz, Enedelia M. 148 E. CR. 2170 Kingsville, TX 78363-2601	2	9

BLOCK # 42

NAME	FARM LOT	DESCRIPTION
Hamilton, Marvin P. 1032 E. Warren Kingsville, TX 78363	3, 4,	1, 2,
Hernandez, Hector 302 E CR 2140 Kingsville, TX 78363 -8852	5	A

BLOCK # 42

NAME	FARM LOT	DESCRIPTION
	HEBERTO GARCIA ADDITION	
Benavente, Ruben 383 N CR 1070 Kingsville, TX 78363	6	D
Garcia, Fidel (Life EST) Humberto Garcia 418 Garcia Hill RD. Kingsville, TX 78363-8902	6	A, B
Martinez, Zulema G. 424 N FM 2619 Kingsville, TX 78363-8933	6	C, E
Garcia, Eduardo 418 Garcia Hill RD Kingsville, TX 78363	6	Lot 1

Garcia, Delmiro L. 2202 Colorado Kingsville, TX 78363	6	Lot 2, 3,
Garcia, Ofelia (Life EST) Mary Garcia ETUX E CR 2130 Kingsville, TX 78363	6	Lot 3

BLOCK # 42

NAME	FARM LOT	DESCRIPTION
	GARCIA HILL # 1	
Basaldua, Nelda 367 E. CR 2130 Kingsville, TX 78363	7	1
DeLaPaz, Sonya G. ETVIR Adrian 418 Garcia Hill Rd Kingsville, TX 78363-8902		
Garcia, Armando 418 ½ Garcia Hill Rd Kingsville, TX 78363	7	
Garcia, Hector T. 3106 Seven Trees Drive Corpus Christi, TX 78410-2422	7	
Garcia, Larry 103 W Sage Road Kingsville, TX 78363	7	3
Garcia, Maria E. 418 Garcia Hill RD Kingsville, TX 78363	7	3A
Garcia, Y.G. P.O. Box 724 Kingsville, TX 78364	7	A, 3,

SURFACE OWNERS – KINGSVILLE DOME AREA
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Martinez, Nazario 418 Garcia Hill RD. Kingsville, TX 78363-8902	7	B, C,
Garcia-Vela, Anjanette 6021 Hugo Drive Corpus Chrisit, TX 78412-3564	8	2
Garcia, Paul 4000 E U.S. 90 Seguin, TX 78155	8	4
Garcia, Sonja & Selma 115 N CR 1060 Kingsville, TX 78363-2612	8	3
Granado, Michael 3614 Castle Rock Corpus Christi, TX 78410-3607	8	5
Granado, Sylvia 424 N FM 2619 Kingsville, TX 78363-8933	8	1
Garcia, Y.G. P.O. Box 724 Kingsville, TX 78364	9	A
Martinez, Nerio G. 419 Garcia Hill Rd Kingsville, TX 78363	6	

BLOCK # 42

NAME	FARM LOT	DESCRIPTION
	PEREZ ADDITION	
Perez, Juan L. ETUX Nelda R 385 N CR 1070 Kingsville, TX 78363-8851	9	Lot 1, 2

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CANDYMAN SUBDIVISION

Benevente, Candelario Q. ETUX Maria Del Rosario 383 N. CR 1070 Kingsville, TX 78363-8851	9	B
Benevente, Heraclio ETUX Sabina 381 N. CR 1070 Kingsville, TX 78363	9	AA

GARCIA HILL # 2

Garcia, Y.G. P.O. Box 724 Kingsville, TX 78364	10	Lot 1, 2, 3,
Jamie, Jesse ETUX Graciela Martinez P.O. Box 769 Kingsville, TX 78364	10	Lot 4, 4A,
Cumberland, Miles 354 E FM 1118 Kingsville, TX 78363-2617	11	1

RICARDO ACRES # 2

Montalvo, Braulio R. ETUX Emma T. 311 E. CR 2140 Kingsville, TX 78363	12	Lot 1, 2, 3,
Frenzel, Harold R. 825 E. Ailsie Ave. - Apt. # 12 Kingsville, TX 78363-6702	14	1

Greorcyk, Scott C. 4560 Ford Beaumont, TX 77706-7419	15	1
Adame, Santana EST. 1116 Jefferson St. Alice, TX 78332-3706	16	1

BLOCK # 47

NAME	FARM LOT	DESCRIPTION
Bousquet, Mary M. 4468 Twin Post Dallas, TX 75244	1	1
Daughters, Harley L. Jr. Marjorie G. Daughters (Trustee) 1401 Robin Lane Beeville, TX 78102	1	1A
Underbrink, Gary ETUX Joan 439 E. FM 1118 Kingsville, TX 78363	1	2
Cumberland, Irene Mary 321 N. CR 1070 Kingsville, TX 78363	1	3
Cumberland, Oletha Fels 440 E. FM 1118 Kingsville, TX 78363-2622	1	4
Talbert, James Murrey ETUX Sharon Kay 366 FM 1118 Kingsville, TX 78363	1	5
Cumberland, Gerald A. 350 E. FM 1118 Kingsville, TX 78361	2	1, 3,
Cumberland, Adelaide 654 E. CR 2200 Kingsville, TX 78363	2	2

Talbert, James Murrey ETUX Sharon Kay 366 FM 1118 Kingsville, TX 78363	2	4

BLOCK # 47

NAME	FARM LOT	DESCRIPTION
Cumberland, Gerald 350 E. FM 1118 Kingsville, TX 78363	3, 4, 5, 6, 7,	1 1, 2, 3,
Cumberland, Irene Mary 321 N. CR 1070 Kingsville, TX 78363	8	1, 4,
Cumberland, Oletha Fels 440 E. FM 1118 Kingsville, TX 78363	8	2
Talbot, James Murrey ETUX Sharon Kay 366 FM 1118 Kingsville, TX 78363	8	3

CUMBERLAND PLACE

Cumberland, John A. 378 E. FM 1118 Kingsville, TX 78363-2617	8	A
Collins, Robert W. P.O. Box 1533 Kingsville, TX 78364-1533	9, 10,	1, 1,

BLOCK # 48

NAME	FARM LOT	DESCRIPTION
URI, Inc. 641 E FM 1118 Kingsville, TX 78363	1, 2, 7, 8,	1,1,1,1,

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Cumberland, Oletha Fels 440 E FM 1118 Kingsville, TX 78363-2622	3, 6,	1, 1, 2,
Cumberland, John A. 378 N FM 1118 Kingsville, TX 78363-2617	3, 6, 4, 5,	2, 3, 2, 2,
Cumberland, Richard 1206 Oakmere Lake Court Spring, TX 77379-3643	4, 5, 10	1, 1A, 1, 1A, 1
Dietz, Steve ETUX Kelly 269 N CR 1080 Kingsville, TX 78363-2623	7	
Fuchs, Stephen W ETUX Melissa K Fuchs 489 E FM 1118 Kingsvulle, TX 78363-2622	7	
Wukasch, J. Eugene % Susan Wukasch (Guardian) P.O. Box 5089 Georgetown, TX 78627-5089	7	2
Radford, Darrin 283 N CR 1080 Kingsville, TX 78363-2623	9, 10	1, 1A, 2
Underbrink, Gary ETUX 439 E. FM 1118 Kingsville, TX 78363-2622	11	1, 2,
Perez, John 419 E. FM 1118 Kingsville, TX 78363-2622	12	1, 2,
Grotz, Ralph P.O. Box 72612 Corpus Christi, TX 78472	12	3, 4,

Ortega, Jose Alfonso ETUX Maria C 292 N CR 1070 Kingsville, TX 78363-2776	12	W/2
Beakey, Antoinette 2720 S.W. Park Terrace Albany, OR 97321	13, 14, 15	1, 1, 1
Dietz, Stanley 11244 Woodridge Bluff San Antonio, TX 78249-3120	16	1, 2,

BLOCK # 49

NAME	FARM LOT	DESCRIPTION
Cumberland, John A. 378 E FM 1118 Kingsville, TX 78363-2617	1,2,7,8	1,1,1,1
Cumberland, Oletha Fels 440 E. FM 1118 Kingsville, TX 78363	3,4,5,6	1,1,1,1
Cumberland, Richard 1206 Oakmere Lake Court Spring, TX 77379-3643	2,3,6,7 7,	2, 2, 2A, 2A, 2,2A 2,2A
Jones, Gene M. P.O. Drawer A Kingsville, TX 78364	9, 10, 11	1, 2, (50% Und Int)
Ohlenbusch, Herman H. P.O. Box 5330 Kingsville, TX 78363	10, 1,	1, 2, (50% Und Int)
Radford, W.F. 218 N. CR 1080 Kingsville, TX 78363	12,13,14,15 16	1, 1.11,2 1, (50% Und Int)
Radford, Jane F. – Trust W.F. Radford Trustee 218 N. CR 1080 Kingsville, TX 78363	12,13,14,15 16	1A, 1A, 1A, 1A, 2A 1A, (50% Und Int)

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BLOCK # 50

NAME	FARM LOT	DESCRIPTION
Huff, Leonard Jr. RT. 1, Box 37 Riviera, TX 78379	3,4,5,6	2,2,1,1
Ohlenbusch, Herman H. P.O. Box 5330 Kingsville, TX 78364	3, 4,	1, 1 (50% UI)

BLOCK # 50

NAME	FARM LOT	DESCRIPTION
Burris, Zeffie L. EST Ernest ETAL (JNT PERS REP) 290 N CR 1100 Kingsville, TX 78363-2627	9, 10,	1, 2,
Bippert, Melba Carolyn Life Est. 679 E CR 2160 Kingsville, TX 78363	9, 10,	2, 2,
Bippert, William W. Jr. (ETAL) 679 E CR 2160 Kingsville, TX 78363-2625	PT 9, 10,	2
Childs Jr., K.A. ETUX Jan D. 658 E CR 2160 Kingsville, TX 78363-2625	Pt 7	
Nevilles, Devin W. 5458 River Trail Drive Robstown, TX 78380-5889	1,2,3,4,5,6,8	
Robertson, Patrick H. 640 E FM 1118 Kingsville, TX 78363-2628	Pt 13	

SURFACE OWNERS – KINGSVILLE DOME AREA
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Robertston, Sharon C. 640 E FM 1118 Kingsville, TX 78363-2628	13	2, 3,
The Iva C. Burris Rev. Living Tr. 640 E FM 1118 Kingsville, TX 78363-2628	11,12,13,14 15, 16,	1,1,1,1 1,1,

BLOCK # 51

NAME	FARM LOT	DESCRIPTION
Burris, Zeffie L. 290 N CR 1100 Kingsville, TX 78363-2627	Pt 6, Pt 7	2, 1, 4,
Bippert, Ernest ETUX Glenda EST 290 N CR 1100 Kingsville, TX 78363-2627	2,7,15	2, 3,
Hanson, Kevin James 4622 Meadow Lark Lane Kingsivlle, TX 78363-2754	1	
Javelina Holdings % F B Cochran Managing Partner 2205 Stanmore Drive Houston, TX 77019-5613	4, 5, 6, 9, 10-11 Pt 12-14	
Malin Ranch LLC 760 S CR 1072 Riviera, TX 78379-3507	8, 9,	1, 1,
Nevilles, Devin W. 5458 River Trail Drive Robstown, TX 78380-5889	2, 3, 4, &12,	
The Collins Family Partnership P O Box H Kingsville, TX 78364-1610	12-14	

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BLOCK # 54

NAME	FARM LOT	DESCRIPTION
Bippert Bros. Partnership 679 E. CR 2160 Kingsville, TX 78363	1	1, 5,
Burris Zeffie L. 290 N CR 1100 Kingsville, TX 78363-2627	1	2
Murchison, Nancy Huffman AKA Nancy H M Griffin 342 San Saba Meadowlakes, TX 78654-7009	1	3
Bippert Jr., William 679 E. CR 2160 Kingsville, TX 78363	1	4
Borg, Marie L- RV TRUST Marie L Borg Trustee Box 4363 RFD Long Grove, IL. 60047-9761	2	1
Bousquet, Mary M. 4468 Twin Post Road Dallas, TX 75244-6745	3-6	1,1,1,1
Daughters, Harley L. Jr. Marjorie G. Daughters (Trustee) 1401 Robin Lane Beeville, TX 78102-3726	3-6	1A, 1A, 1A, 1A
The Iva C. Burris Rev. Living Tr. 640 E FM 1118 Kingsville, TX 78363-2628	Pt 7, 8,	1, 2, 1,
Huseman, Van 600 Leopard St. STE 2100 Corpus Christi, TX 78473-1156	9, 13-16	1

Williams, Frank D. Jr. 663 E CR 2180 Kingsville, TX 78363-2629	10	1, 2,

BLOCK # 54 cont'd.

NAME	FARM LOT	DESCRIPTION
TRACT A TO E		
Castaneda-Perez, Maria Sylvia 448 Doherty St San Benito, TX 78586-4323	12	
De La Rosa Fema & Santiago 706 E FM 1118 Kingsville, TX 78363-2633	Pt 12	
Elwell Perez, Mary Jane P O Box 921 Lyford, TX 78569-0921	12	
Garcia, Ascension EST 1503 E Santa Gertrudis St Kingsville, TX 78363-4806	12	
Gooch, Estella Perez 1418 Chaparral Street Harlingen, TX 78550-8830	12	
Juarez Pena, Herminia P O Box 5722 Kingsville, TX 78364-5722	12	
Moreno, Anselma P. 1298 E. Johnson Hemet, CA. 92343	11	1
Moreno, Arturo 3819 Pettus Dr. San Antonio, TX 78228	11	2
Ortegon, Carlos ETAL 722 E FM 1118 Kingsville, TX 78363-2633	Pt 12	

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Ortegon, Fabian 722 E FM 1118 Kingsville, TX 78363-2633	12	7
Perez, David H. P O Box 851 Kingsville, TX 78363-0851	12	
Perez, Domingo 619 E CR 2180 Kingsville, TX 78363-2629	Pt 12	
Perez, Jesse 1916 Martin St Kingsville, TX 78363-7029	12	
Perez, Jose Jr. P O Box 5178 Kingsville, TX 78364-5178	12	
Perez, Leonardo 613 E CR 2180 Kingsville, TX 78363-2629	12	
Perez, Patricio EST ETUX Marta Chavez (LIFE EST) 631 E. CR 2180 Kingsville, TX 78363-2629	11	4
Perez, Sirildo ETUX Marta Chavez 631 E CR 2180 Kingsville, TX 78363-2629	11	5
Perez Martinez, Velma 2504 Westfield St Alvin, TX 77511-3823	12	
Vela, Francisca P. EST % Filiberto Vela P O Box 1274 Cashion, AZ. 85329-1274	Pt 12	4

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TRACT F-H

Alvarado, Benita P O Box 110 Kingsville, TX 78364-0110	Pt 11	
Perez, Domingo Jr. ETUX Sylvia C Perez 106 E FM 1118 Kingsville, TX 78363-2611	11	
Perez, Faustino S. EST/ETAL 118 W Chavez Ave Kingsville, TX 78363-8877	11, Pt 12	
Perez, Juanita S. Est. % Teresa P Jimenez - Guardian 1116 E. Doddridge Kingsville, TX 78363	11	1
Perez, Teresa 1117 E. Doddridge Kingsville, TX 78363	11	2
Perez, Manuel S. Jr. 10514 Norvec Houston, TX 77029	11	3
Perez, Patricio EST ETUX Marta Chavez (LIFE EST) 631 E CR 2180 Kingsville, TX 78363-2629	11	
Perez, Raul 16135 Old Richmond Rd. Sugarland, TX 77478	11	4
Perez, Ricardo S. 104 W Chavez Ave Kingsville, TX 78363-8877	11	
Reyes, Celia M. P O Box 5676 Kingsville, TX 78364	Pt 11	

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BLOCK # 54 cont'd.

NAME	FARM LOT	DESCRIPTION
Perez, Ricardo S. ETUX Juanita 104 E. Chavez Ave. Kingsville, TX 78363	11	5
Perez, Faustino S. 118 W. Chavez Kingsville, TX 78363	11	6, 7,
TRACTS G-K		
Garcia, Ascension 1503 E. Sta. Gertrudis Kingsville, TX 78363	12	2
Garcia, Juan Leal 1505 E Santa Gertrudis Kingsville, TX 78363-4806	11	3
Perez Jr., Domingo ETUX Sylvia C. Perez 106 E FM 1118 Kingsville, TX 78363-2611	12	5, 6,
Perez, Faustino S. EST 118 W. Chavez Ave Kingsville, TX 78363-8877	12	
Perez, Zenaida P. Est % Faustino S. Perez 118 W. Chavez Kingsville, TX 78363	12	3

BLOCK # 55

NAME	FARM LOT	DESCRIPTION
Cumberland, Irene Mary 321 N. CR 1070 Kingsville, TX 78363	1,2,3,4,5,6,7,8,9 10, 11, 12,13,14,15 16, 17,	1,1,1,1,2.1,2,3 1, 1,1,1,1, 1, 1.1.1,

Radford, Jane F. Trust 218 N CR 1080 Kingsville, TX 78363	1,2,3,4,5,6,7,8,9 10, 11, 12,13,14,15 16, 17,	2,2,2,1A,2A,3A 2, 1A, 1A, 1A, 1A 1A, 1A,1A.1A,1A1A

BLOCK # 56

NAME	FARM LOT	DESCRIPTION
Dietz, Stanley 11244 Woodridge Bluff San Antonio, TX 78249-3120	1,2,7,8,	
Beakey, Antoinette (LIFE EST) Brittany Ann Beakey 2720 Park Terrace SW Albany, OR 97321-3473	3, 4,	
Cole, Ruth V. P O Box 1476 Kingsville, TX 78364-1476	W/2, 5, 6,10,11,12	
Gonzalez, Angel R. Jr. 287 E FM 772 Kingsville, TX 78363-2647	15, 16,	
Meyer, Steve W. ETUX Carla Meyer 413 E CR 2170 Kingsville, TX 78363-2620	Pt 5, 4,	
Miller, John D. ETUX Danielle P O Box 1266 Kingsville, TX 78364-1266	Pt 9	

BLOCK # 57

NAME	FARM LOT	DESCRIPTION
Meyer, William F. 1224 Roosevelt Blvd Alice, TX 78332-3712	N/2 1-2	

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Grisham, Irene Helen 314 CR 211 Alice, TX 78332-9344	S/2 1-2	

PALOMA HILLS – PHASE 4-10

Anthony Revocable Trust P O Box 1328 Kingsville, TX 78364-1328	Pt 3, 4,	1-9
Sanchez, Eduardo R. ETUX Oralia – ETAL 290 N CR 1050 Kingsville, TX 78363-2692	1, 2, 3,4,5,8,9,10	3,3A,

TAYLOR ESTATES

Anthony Family Partnership, LTD P O Box 1328 Kingsville, TX 78364-1328	4
Dodson, Jean T. 610 Seaway Drive Seabrook, TX 77586-5917	2
Garcia, Freddy ETUX Cynthia M P O Box 106 Kingsville, TX 78364-0106	1
Saverline, Frank ETUX Patricia David Saverline 138 S CR 1060 Kingsville, TX 78363-2646	5
Saverline, David E. 325 E CR 2180 Kingsville, TX 78363-2778	5, 6,
Fisher, Taylor Frances 182 N CR 1060 Kingsville, TX 78363-2612	7

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ALOMA HILL

Dreyer, Doyle W. ETUX Barbara 301 E FM 1118 Kingsville, TX 78363	3, 4,

Block #57 Continued

Camarillo, Pedro 11023 Cleveland Ave. Riverside, CA 92503-5934	S of 9 & 17; E of Pt of 10 &16
Taylor, W.D. EST ETUX – LeRoy K. Taylor (TR) ETAL 182 N CR 1060 Kingsville, TX 78363-2612	5, 6, 10, 15
West, Paul M. % Sug Ivy 489 N CR 1050 Kingsville, TX 78363-8923	7, 8,
Underbrink, Mary Ann 133 N Underbrink Road Kingsville, TX 78363-2641	W of Pt 10, 16,

BLOCK # 61

NAME	FARM LOT	DESCRIPTION
Bars Living Trust Bars, Michael & Elenor (CO-TR) 823 S 23rd Street Kingsville, TX 78363-6511	1, 2, 9,	1, 2, 1,
Gonzales, Angel C. SR 287 E FM 772 Kingsville, TX 78363-2647	3,4,5,6,7,8	1,2,1,2,1,1
Medina, Danielle R. TRUST Dorinda Medina Kirch (TR)	5, 6,	Tract 1,1

604 Devictor Dr. Maryville, TN 37801-8665		
Acosta, Elvira P O Box 1645 Kingsville, TX 78364-1645	5, 6,	Tract 2, 2
Perales, Benilde 709 E Avenue A Kingsville, TX 78363-3949	5, 6,	Tract 3, 3
Ramirez, Arturo 501 Helen Marie Drive Kingsville, TX 78363-7311	5, 6,	Tract 4, 4
Garza, Dora 325 Hornbean Lane Cibolo, TX 78108-3236	5, 6,	Tract 5, 5

BLOCK # 62

NAME	FARM LOT	DESCRIPTION
SUBLOT 1:		
Radford, W.F. ETAL Jane F Radford Trust 218 N CR 1080 Kingsville, TX 78363-2623	1	1A, 1B
Radford, Carol Ann 218 N CR 1080 Kingsville, TX 78363-2623	1	1C
SUBLOT 2:		
Radford, W.F. ETAL Jane F Radford Trust 218 N CR 1080 Kingsville, TX 78363-2623	1	2A
May, Dorthella C. 759 E FM 1118 Kingsville, TX 78363-2623	1	2B

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BLOCK # 62 Continued

NAME	FARM LOT	DESCRIPTION
C E & D May Partnership P O Box 488 Agua Dulce, TX 78330-0488	1	2C
SUBLOT 3:		
Radford, W.F. ETAL Jane F Radford Trust 218 N CR 1080 Kingsville, TX 78363-2623	1	3A
Radford, William D. 702 W. Henrietta Avenue Kingsville, TX 78363-4210	1	3B
Oates, Orlie E. Jr. 3505 N 4th Street Clinton, IA 52732-9660	1	3C
SUBLOT 4:		
Radford, W.F. ETAL Jane F Radford Trust 218 N CR 1080 Kingsville, TX 78363-2623	1,2,3,4,5,6,7	4A, 4B, 1, 1,1,1,1
SUBLOT 1-2, 3-4:		
Radford, W.F. ETAL Jane F Radford Trust 218 N CR 1080 Kingsville, TX 78363-2623	8	1A, 1C, 2A, 3A, 4A
Radford, William F. 218 N CR 1080 Kingsville, TX 78363-2623	8	3B, 4B

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SUBLOT 1:

Radford, Darrin Lee
218 N CR 1080
Kingsville, TX 78363-2623

SUBLOT 4:

Radford, Carol Ann 218 N CR 1080 Kingsville, TX 78363	8	4C
Stratton, Bessie Mae ETAL 1815 Greenwest Drive Missouri City, TX 77489-4032	8	
Gonzales, Angel C. Sr. 287 E FM 772 Kingsville, TX 78363-2647	3, 4, 5,6,7,8	
Medina, Danielle R. Trust Dorinda Medina Kirch (TR) 604 Devictor Dr. Maryville, TN 37801-8665	5, 6,	

BLOCK # 63

NAME	FARM LOT	DESCRIPTION
Huseman, Van 600 Leopard Street Suite 2100 Corpus Christi, TX 78473-1156	1-4	1, 1, 2,1,2,1
Underbrink, Gary L. ETUX Joan M 439 E FM 1118 Kingsville, TX 78363-2622	5,6,7,8	1, 1, 1,2,3,1

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BLOCK # 64

NAME	FARM LOT	DESCRIPTION
Huseman, Van 600 Leopard Street Suite 2100 Corpus Christi, TX 78473-1156	1-4	1,1,2,1,21,2 2, 1,
Krueger, Michael J. P O Box 1538 Kingsville, TX 78364-1538	5-8	1, 1, 1,

BLOCK # 65

NAME	FARM LOT	DESCRIPTION
Clark, Harold J. ETUX Marie M. EST (LIFE EST) P O Box 2733 Kingsville, TX 78363-8327	1,2,3,8,	1,2,3,8,
Irby, Scott B. ETUX Jana L. 811 E CR 2198 Kingsville, TX 78363-2630	6, 7,	
Strubhart, Paul T. ETUX Cynthia P O Box 2723 Kingsville, TX 78363-8327	1,2,3,4,5,6,7,15,16 17,18,19,20,24,25,	1,2,1,4,1,1,1,1,1 1,1,1,1,1,2,
Salazar, Armando Jr. ETUX Graciela 864 E CR 2200 Kingsville, TX 78363-2632	8	1
Salazar, Armando 864 E CR 2200 Kingsville, TX 78363-2632	8, 9,	
Scarborough, James S. III P O Box 386 Kingsville, TX 78364-0386	10	

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Gutierrez, Rosa Elia 932 E CR 2200 Kingsville, TX 78363-2631	13, 14,	1, 1A, 1B, 2,
Gutierrez, Francisco 5203 Kylie Springs Lane Houston, TX 77066-3363	13, 14 ,	2, 3,
Gutierrez, Maria Luz 209 Frawley Street Houston, TX 77099-3227	13, 14 ,	4, 5, 5, 6,
Guerra, Joe L. ETUX Rosa M. 13342 W Redbird Lane Corpus Christi, TX 78410	13, 14,	6, 7,
C E & D May Partners, LTD P O Box 488 Agua Dulce, TX 78330-0488	15	2
Whitewell, John B. ETUX Lydia M. 401 Captains Cove Rockport, TX 78382-9774	15, 16-19, Pt 20,23,24,25	5
Stratton, Bessie Mae ETAL 1815 Greenwest Drive Missouri City, TX 77489-4032	25	
Welch, Ruth D. 4600 Ocean Drive Apt. 602A Corpus Christi, TX 78412	24, Pt 25	1
Reichardt Partners, LTD Reichardt, William Dennet 6429 Tulip Lane Dallas, TX 75230	24, Pt 25	1A
Adkins, Kathleen 5519 Tupper Lake Drive Houston, TX 77056-1626		

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Urban, Elizabeth
HFH Investments
P O Box 399
Buda, TX 78610-0399

Haffer, Hatsy Heep
P O Box 897
White Sulphur, SW Virginia 24986-0897

Attachment E
Financial Assurance Calculations

KINGSVILLE DOME PLUGGING AND ABANDONMENT ESTIMATE (10-03-07 updated to 12-31-11)

PAA	WELL TYPE	WELL DIA	QTY	AVERAGE DEPTH	HOLE VOLUME	CEMENT REQ'D	CEMENT COST	PE STAMP	BACKHOE RENTAL	BACKHOE OPERATOR	ENG/ GEOL	TOTAL PER HOLE	TOTAL PAA	WITH PROFIT	WITH INFLATION
UNITS OF MEASURE		IN		FT	CU YD	CU YD	EACH								
PAA1	PRODUCTION	6	285	630	4.58	5.50	428.94	4.05	6.82	5.94	24.30	470.05	133,964	160,757	170,032
PAA1	PRODUCTION	5	71	632	3.19	3.83	298.82	4.05	6.82	5.94	24.30	338.93	24,135	28,962	30,633
PAA1	MONITOR	4.5	61	572	2.34	2.81	219.06	4.05	6.82	5.94	24.30	260.18	15,871	19,045	20,144
PAA1	OTHER	5	16	618	3.12	3.75	292.20	4.05	6.82	5.94	24.30	333.31	5,333	6,400	6,769
PAA TOTALS			433			2,070	161,501	1,755	2,952	2,572	10,522		179,302	215,163	227,578
PAA2	PRODUCTION	6	791	601	4.37	5.24	409.19	1.94	6.82	5.94	24.30	448.19	354,520	425,424	449,971
PAA2	PRODUCTION	5	6	606	3.06	3.67	286.53	1.94	6.82	5.94	24.30	325.52	1,953	2,344	2,479
PAA2	MONITOR	4.5	102	522	2.14	2.56	199.92	1.94	6.82	5.94	24.30	238.91	24,369	29,243	30,931
PAA2	OTHER	5	5	608	3.07	3.68	287.47	1.94	6.82	5.94	24.30	326.47	1,632	1,959	2,072
PAA TOTALS			904			4,450	347,219	1,755	6,164	5,370	21,967		382,475	458,969	485,452
PAA3	WF-9, 10, 13, 14, 15, 16, 17 &18	6	313	610	4.44	5.32	415.32	4.22	6.82	5.94	24.30	456.60	142,915	171,498	181,393
PAA3	MONITOR	5	92	575	2.90	3.48	271.87	4.22	6.82	5.94	24.30	313.15	28,809	34,571	36,566
PAA3	OTHER	5	0	595	3.00	3.61	281.32	4.22	6.82	5.94	24.30	322.60	-	0	0
PAA3	OTHER	5	11	635	3.21	3.85	300.24	4.22	6.82	5.94	24.30	341.51	3,757	4,508	4,768
PAA TOTALS			416			2,029	158,310	1,755	2,836	2,471	10,109		175,481	210,577	222,727
KINGSVILLE TOTALS			1,753			8,549	667,030	5,265	11,952	10,413	42,598		737,258	884,709	935,757

CEMENT SLURRY SHRINKAGE	120%
CEMENT COST PER YARD @ 11.2 ppg	$ 78.02
HOLES FILLED PER DAY	10
PROFESSIONAL ENGINEER PER PAA	$ 1,755.00
ENGINEER/GEOLOGIST PER YEAR	$ 45,000.00
BACKHOE OPERATOR PER YEAR	$ 22,000.00
BACKHOE RENTAL PER DAY	$ 68.18
CONTRACTOR PROFIT	120%
INFLATION FACTOR FROM 10-03-07 TO 12-31-11	5.77%

TCEQ INFLATION FACTORS
- 2011 - 1.0% (estimated)
- 2010 - 1.0%
- 2009 - 1.0%
- 2008 - 2.2%
- 2007 - 2.7%

Notes –

-The Plugging and abandonment estimate includes the contractor profit of 20%.

-Based on annual inflation factors provided by TCEQ, the inflation factor from 10-03-07 to 12-31-11 was calculated to be 5.77%.

-Cement slurry shrinkage factor of 20% is used to account for the shrinkage due to dehydration and also cement loss to the formation.

Ron Grant 1/31/2012 3:03 PM

The current restoration cost estimate reflects a significant amount of groundwater restoration completed at the Kingsville Dome site in 2011. Moreover, there have been no new wells or wellfields constructed at the site in 2011 that would affect the groundwater restoration or P&A estimate. That being the case, the groundwater cost estimate from the previous year minus completed groundwater restoration is still considered to be accurate, and URI has elected to adjust the amount from the previous year by the TCEQ approved Gross Domestic Product Implicit Price Deflator (GDPIPD) factor for the 2010 of 1.0%.

URI, INC. Financial Security Cost Update (Jan. 2012)						
Groundwater Restoration						
WF No.	Approved Amount	% Complete	Remaining	w/2008 GDP	w/2009 GDPIPD	w/2010 GDPIPD
Kingsville Dome Project (Permit UR02827)						
6	$343,087.93	100	$0.00	$0.00	$0.00	$0.00
9	$120,282.15	0	$120,282.15	$122,928.35	$124,403.49	$125,647.53
10	$125,334.54	0	$125,334.54	$128,091.90	$129,629.00	$130,925.29
11	$403,500.00	100	$0.00	$0.00	$0.00	$0.00
12	$183,063.38	100	$0.00	$0.00	$0.00	$0.00
13	$115,269.31	0	$115,269.31	$117,805.24	$119,218.90	$120,411.09
14	$150,764.00	20	$120,611.20	$123,264.64	$124,743.82	$125,991.26
15	$274,250.17	100	$0.00	$0.00	$0.00	$0.00
16	$177,047.69	100	$0.00	$0.00	$0.00	$0.00
17	$150,075.07	20	$120,060.06	$122,701.38	$124,173.80	$125,415.53
18	$91,855.23	100	$0.00	$0.00	$0.00	$0.00
Total>>>>	$2,134,529.46		$601,557.25	$614,791.51	$622,169.01	$628,390.70

KINGSVILLE DOME GROUNDWATER RESTORATION BY WELLFIELD

Kingsville Dome WF9

Groundwater Cost Estimate (Area Approach)

Zone	Area	Thck.	por.	HDF	VDF	PV	PV*6	*7.48	*.001	*$2.75
LUB	46,402.0	10	0.3	1.5	1.3	271,452	1,628,710	12,182,752	12,183	$33,502.57
MLB	9,973.0	8	0.3	1.5	1.3	46,674	280,042	2,094,713	2,095	$5,760.46
ULB	68,454.0	10	0.3	1.5	1.3	400,456	2,402,735	17,972,461	17,972	$49,424.27
								Total >>>>>>		$88,687.30
								w/5 Yr. CPI ADJ >>>>>>	8.50%	$96,225.72
								w/Contingency>>>>>>	25%	$120,282.15

Kingsville Dome WF10

Groundwater Cost Estimate (Area Approach)

Zone	Area	Thck.	por.	HDF	VDF	PV	PV*6	*7.48	*.001	*$2.75
LUB	74,767.0	10	0.3	1.5	1.3	437,387	2,624,322	19,629,926	19,630	$53,982.30
ULB	53,227.0	10	0.3	1.5	1.3	311,378	1,868,268	13,974,642	13,975	$38,430.27
								Total >>>>>>		$92,412.56
								w/5 Yr. CPI ADJ >>>>>>	8.50%	$100,267.63
								w/Contingency>>>>>>	25%	$125,334.54

KVD WF11 & 12 November 17, 2006

Groundwater Cost Estimate (Area Approach)

Area	Pore Volume (PV)		Restoration PV	$/Mgal	Cost	Contingency	Bond
	Gallons	M Gallons	(PV*6)			(25%)	Adjustment
KVD WF11&12	8,875,800	8,878	53,255	$ 2.75	$ 146,450.70	$ 36,612.68	$ 183,063.38

Total>>>> $ 183,063.38

KVD WELLFIELD 13

Groundwater Cost Estimate (Area Approach)

Zone	Area	Thck.	por.	HDF	VDF	PV	PV*6	*7.48	*.001	*$2.75
LUB	33016	12	0.3	1.5	1.3	231,772	1,390,634	10,401,942	10,402	$28,605.34
MLB	39048	10	0.3	1.5	1.3	228,431	1,370,585	10,251,974	10,252	$28,192.93
ULB	39048	10	0.3	1.5	1.3	228,431	1,370,585	10,251,974	10,252	$28,192.93
								Total>>>>>>>>>>>>>>		$84,991.20
								5 Yr. CPI	8.50%	$92,215.45
								Contingency	25%	$115,269.31

Kingsville Dome WF14

Groundwater Cost Estimate (Area Approach)

Zone	Area	Thck.	por.	HDF	VDF	PV	PV*6	*7.48	*.001	*$2.75
LUB	29,646.7	12.3	0.3	1.5	1.3	213,323	1,279,937	9,573,929	9,574	$26,328.30
MLB	54,167.5	12	0.3	1.5	1.3	380,256	2,281,535	17,065,883	17,066	$46,931.18
ULB	52,496.6	10	0.3	1.5	1.3	307,105	1,842,631	13,782,877	13,783	$37,902.91
								Total>>>>>>>>>>>>>>		$111,162.39
								5 Yr. CPI	8.50%	$120,611.20
								Contingency	25%	$150,764.00

KINGSVILLE DOME GROUNDWATER RESTORATION BY WELLFIELD

Kingsvile Dome WF15

Groundwater Cost Estimate (Area Approach)

Zone	Area	Thck.	por.	HDF	VDF	PV	PV*6	*7.48	*.001	*$2.75
MLA	73,667.0	7.5	0.3	1.5	1.3	323,302	1,939,810	14,509,781	14,510	$39,901.90
ULA	92,752.0	9	0.3	1.5	1.3	488,339	2,930,036	21,916,667	21,917	$60,270.83
LUA	121,781.0	9	0.3	1.5	1.3	641,177	3,847,062	28,776,022	28,776	$79,134.06
UUA	63,449.0	5	0.3	1.5	1.3	185,588	1,113,530	8,329,204	8,329	$22,905.31
								Total >>>>>>		$202,212.10
								w/5 Yr. CPI ADJ >>>>>>	8.50%	$219,400.13
								w/Contingency>>>>>>	25%	**$274,250.17**

Kingsvile Dome WF16

Groundwater Cost Estimate (Area Approach)

Zone	Area	Thck.	por.	HDF	VDF	PV	PV*6	*7.48	*.001	*$2.75
LUA	58,719.0	9	0.3	1.5	1.3	309,156	1,854,933	13,874,900	13,875	$38,155.98
ULA	83,739.0	9	0.3	1.5	1.3	440,886	2,645,315	19,786,956	19,787	$54,414.13
MLA	70,123.0	7.5	0.3	1.5	1.3	307,665	1,845,988	13,807,990	13,808	$37,971.97
								Total >>>>>>		$130,542.08
								w/5 Yr. CPI ADJ >>>>>>	8.50%	$141,638.16
								w/Contingency>>>>>>	25%	**$177,047.69**

Kingsvile Dome WF17

Groundwater Cost Estimate (Area Approach)

Zone	Area	Thck.	por.	HDF	VDF	PV	PV*6	*7.48	*.001	*$2.75
LUA	33,029.0	9	0.3	1.5	1.3	173,898	1,043,386	7,804,528	7,805	$21,462.45
ULA	78,296.0	9	0.3	1.5	1.3	412,228	2,473,371	18,500,812	18,501	$50,877.23
MLA	70,756.0	7.5	0.3	1.5	1.3	310,442	1,862,652	13,932,635	13,933	$38,314.75
								Total >>>>>>		$110,654.43
								w/5 Yr. CPI ADJ >>>>>>	8.50%	$120,060.05
								w/Contingency>>>>>>	25%	**$150,075.07**

Kingsvile Dome WF18

Groundwater Cost Estimate (Area Approach)

Zone	Area	Thck.	por.	HDF	VDF	PV	PV*6	*7.48	*.001	*$2.75
LUA	37,286.0	9	0.3	1.5	1.3	196,311	1,177,865	8,810,428	8,810	$24,228.68
ULA	66,941.0	9	0.3	1.5	1.3	352,444	2,114,666	15,817,703	15,818	$43,498.68
								Total >>>>>>		$67,727.36
								w/5 Yr. CPI ADJ >>>>>>	8.50%	$73,484.19
								w/Contingency>>>>>>	25%	**$91,855.23**

Attachment F
Core Data Form

SECTION I: General Information							
1. Reason for Submission *Example: new wastewater permit; IHW registration; change in customer information; etc.*							
Kingsville Dome ISR Project Permit Renewal							
2. Attachments		Describe Any Attachments: *(ex: Title V Application, Waste Transporter Application, etc.)*					
X	YES		NO	Application and Technical Report			
3. Customer Reference Number-*if issued*				4. Regulated Entity Reference Number-*if issued*			
CN		*(9 digits)*		RN		*(9 digits)*	

SECTION II: Customer Information

5. Customer Role *(Proposed or Actual)* -- As It Relates to the Regulated Entity Listed on This Form							
Please check one of the following:			Owner		Operator	X	Owner and Operator
	Occupational Licensee		Volunteer Cleanup Applicant				Other
TCEQ Use Only			**Superfund**		**PST**		**Respondent**
6. General Customer Information							
	New Customer				Change to Customer Information		
	Change in Regulated Entity Ownership			X	No Change *		
*If "No Change" and Section I is complete, skip to Section III - Regulated Entity Information.							
7. Type of Customer:			Individual		Sole Proprietorship - D.B.A.		
	Partnership	X	Corporation		Federal Government		
	State Government		County Government		City Government		
	Other Government			Other:			
8. Customer Name *(If an individual, please print last name first)*				*If new name, enter previous name:*			
URI, Inc.							
9. Mailing Address:	405 SH 121 Bypass, Building A, Suite 110						
	City			State		ZIP	ZIP + 4
	Lewisville			Texas		75067	
10. Country Mailing Information *if outside USA*				11. E-Mail Address *if applicable*			
				mspelizza@uraniumresources.com			
12. Telephone Number			13. Extension or Code		14. Fax Number *if applicable*		
972-219-3330					972-219-3311		
15. Federal Tax ID *(9 digits)*		16. State Franchise Tax ID Number *if applicable*			17. DUNS Number *if applicable (9 digits)*		
75-2202187		1-75-2202187-6					
18. Number of Employees					19. Independently Owned and Operated?		
0-20	X	21-100	101-250	251-500	501 and higher	Yes	No

SECTION III: Regulated Entity Information

20. General Regulated Entity Information					
	New Regulated Entity		Change to Regulated Entity Information	X	No Change*
*If "No Change" and Section I is complete, skip to Section IV - Preparer Information.					

21. Regulated Entity Name *(If an individual, please print last name first)*				
URI, Inc.				
22. Street Address (No PO Boxes)	405 SH 121 Bypass, Building A, Suite 110			
	City	State	ZIP	ZIP + 4
	Lewisville	Texas	75067	
23. Mailing Address	405 SH 121 Bypass, Building A, Suite 110			
	City	State	ZIP	ZIP + 4
	Lewisville	Texas	75067	
24. E-Mail Address:	mspelizza@uraniumresources.com			

25. Telephone Number	26. Extension or Code	27. Fax Number *if applicable*
972-219-3330		972-219-3311

28. Primary SIC Code (4 digits)	29. Secondary SIC Code (4 digits)	30. Primary NAICS Code (5 or 6 digits)	31. Secondary NAICS Code (5 or 6 digits)
1094		212291	331419

32. What is the Primary Business of this entity? (Please do not repeat the SIC or NAICS description)

Uranium Mining and Processing

Questions 33 - 37 address geographic location. Please refer to the instructions for applicability.

33. County Kleberg

34. Description of Physical Location

_ 8 miles southeast of the City of Kingsville, 4 miles east of the town of Ricardo off FM118, Kleberg County Texas.

35. Nearest City	State	Nearest Zip
Kingsville	Texas	78363

36. Latitude (N)			*37. Longitude (W)*		
Degrees	*Minutes*	*Seconds*	*Degrees*	*Minutes*	*Seconds*
27	23	33	97	46	13

38. TCEQ Programs In Which This Regulated Entity Participates *Not all programs have been listed. Please add to this list as needed. If you don't know or are unsure, please mark "Unknown".* If you know a permit or registration # for this entity, please write it below the program."

	Animal Feeding Operation		Petroleum Storage Tank		Water Rights
	Title V - Air		Wastewater Permit		U.I.C.
	Industrial & Hazardous Waste		Water Districts		Radioactive Materials
	Municipal Solid Waste		Water Utilities		Unknown
	New Source Review - Air		Licensing - TYPE(s)		

Section IV: Preparer Information

39. Name	40. Title
Mark S. Pelizza	Sr. Vice President

41. Telephone Number	42. Extension or Code	43. Fax Number *if applicable*
972-219-3330		972-219-3311

44. E-mail Address:	mspelizza@uraniumresources.com

Attachment G
Public Interest Statement

PUBLIC INTEREST DEMONSTRATION

1. That the use or installation of the injection well is in the public interest. *Class III injection well are subject to the permitting requirements by TCEQ. The operating permit requires that the well(s) meet any regulations the state has adopted to assure the protection of USDWs. The permits include specific well construction, monitoring, mechanical integrity testing, maximum allowable injection pressure, and reporting requirements. Proper restoration of groundwater and plugging of all Class III injection wells must be conducted in a manner to protect USDWs from potential contamination. As such there is no environmental safety risk to the public.*

The conduct of Class III uranium recovery operations creates an economic stimulus for the community in which operations are conducted through the purchase of goods and services and employment. The resulting uranium produced provides a reliable source of domestic fuel for the production of electricity. These benefits are all in the public interest.

2. That no existing rights, including, but not limited to, mineral rights, will be impaired. *URI, Inc. has restoration agreements or holds Mineral Leases and Surface Use Agreements for all property within the Kingsville Dome Project Aquifer Exemption Area. No property outside of the restoration or lease areas will be affected by the Kingsville Dome Project ISR activities.*

3. That, with proper safeguards, both ground and surface fresh water can be adequately protected from pollution. *There are proper safeguards in place so that both ground and surface fresh water are adequately protected from pollution. These safeguards are described in detail in the Technical Report for In Situ Mining that is included as part of this Application.*

4. That the applicant has made a satisfactory showing of financial responsibility if required by Section 27.073 of this code. *See Attachment E.*

5. That the compliance history of the applicant and related entities is acceptable. *See Attachment A.*

6. That there is no practical, economic, and feasible alternative to an injection well reasonably available. *The previous Class III permit URO2880 issued by TCEQ support and demonstrate that Class III ISR is the preferred alternative for uranium recovery with regard to practicality, economics, and protection of human health and environment.*

Items numbered 7. through 11. do not apply as this application is not for a hazardous waste injection well.

Class III UIC Permit Application
Technical Report Signature Page
(Sections IV - X)

The technical report of the application must be signed by the technical report supervisor. The supervisor must be a Texas licensed professional engineer, a licensed professional geoscientist, or a qualified person who is competent and experienced in the field to which the application relates and thoroughly familiar with the operation or project for which the application is made. Attach a copy of the supervisor's resume.I (Technical Report Supervisor Name) Mark S. Pelizza, PG (Title) Sr. Vice President certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature _____ Date 9-24-2012

(Note: Application Must Bear Signature and Seal of Notary Public)

STATE OF TEXAS §
COUNTY OF Denton §

SUBSCRIBED AND SWORN to before me by the said Mark S. Pelizza

on this 24th day of September, 2012

My commission expires on the 8th day of Feb, 2016

ROBIN R. WERNER
NOTARY PUBLIC
STATE OF TEXAS
02-08-2016

Robin R. Werner
Notary Public in and for the State of Texas

MARK S. PELIZZA

3217 Breton Drive
Plano, TX 75025

(972) 618-5780
mpelizza@msn.com

Resume

Summary

More than 30 years of experience in environmental management and governmental relations including licensing, permitting, technical and managerial litigation support, and environmental program cost control. A highly qualified environmental professional, astute in regulatory requirements, who is proficient to form opinions and draw scientific inferences related to important health, safety, environmental and regulatory criteria and apply them to business decisions.

Areas of Expertise

Supervision over a broad range of occupational health, safety and environmental regulatory demands in mineral recovery and industrial processing including, site characterization, operational compliance, audits, restoration/reclamation/decommissioning management, waster management, legislative and regulatory liaison, and representation with the public and other stakeholders. Specific expertise includes:

Audits	Health Physics	Permitting, Licensing
Budget, Cost Control	Hydrology/Water Quality	Project Management
Compliance	Legal Support	Policies, Procedures

Accomplishments

- Directed health, safety and environmental programs, inclusive of coordinating staff members and consultants, prepared applications for permits and licensing, and negotiated license conditions.
- Served as a corporate liaison with lawmakers and regulatory agency staff, as well as represented the company and industry trade associations in activities such as rulemaking and legislation.
- Spearheaded corporate public relations strategies and programs as they pertained to environmental issues.
- Developed budgets for environmental programs.
- Designed and implemented environmental monitoring programs and prepared reports.
- Ensured compliance with applicable regulations.
- Led a successful permit and licensing program for thirteen mines and process plants in Texas, New Mexico and Wyoming.
- Managed successful litigation at state and federal levels, including eight contested case hearings.
- Oversaw compliance and audit functions for uranium recovery facilities.
- Coordinated a reclamation effort at five uranium mines and process facilities.

Project Experience

Headed successful, cost effective, environmental programs for new uranium mines and processing plants including:

- Alta Mesa project in Brooks County, Texas.
- Benavides project in Duval County, Texas.
- Churchrock project in McKinley County, New Mexico.
- Crownpoint project in McKinley County, New Mexico.
- Kingsville Dome project in Kleberg County, Texas.
- Longoria project in Duval County, Texas.
- North Platte project in Converse County, Wyoming.
- Palangana project in Duval County, Texas.
- Panna Maria Uranium Mine/Mill in Karnes County, Texas.
- Rosita project in Duval County, Texas.
- Unit 1 project in McKinley County, New Mexico.
- West Cole project in Webb County, Texas.
- Vasquez project in Duval County, Texas.

Responsible for the technical and budgetary aspects of environmental work for these projects included environmental studies, permit/license applications, procured permits or exemptions, disposal well and waste

disposal permits, the production area authorizations, air control permits, surface discharge permits and radioactive materials license. Primary managerial support representative for all environmental litigation including seven administrative hearings before state regulatory agencies and as the technical support manager for one administrative hearing before the Nuclear Regulatory Commission Atomic Safety and Licensing Board.

Due Diligence – Project Evaluation – Environmental Audits

Perform due diligence to evaluate acquisitions of properties and firms. The environmental area of due diligence was focused on actual and potential liabilities and analysis of cost associated with liabilities. Responsible for internal audits for all URI operations. Served for five years on an outside environmental audit team for a uranium processing and national waste disposal facility.

Employment History

URANIUM RESOURCES, INC., DALLAS, TEXAS
Vice President – Health, Safety and Environmental Affairs
February 1997 through present
Environmental Manager
August 1980 through January 1997

Direct URI's Texas, Wyoming, and New Mexico environmental programs. Coordinate staff and consultants, prepare applications for permits and licenses, negotiate license conditions and serve as corporate liaison with all regulatory agencies. Direct the Company in public relations forums pertaining to environmental issues and in-situ mining. Company representative in environmental activities, such as rule-making process, hearings, litigation, etc.

UNION CARBIDE CORP., BENAVIDES, TEXAS
Environmental Planning Engineer
February 1979 through August 1980

Obtained environmental licenses and permits, negotiated license and permit commitments and preparation of environmental reports. Designed and implemented all environmental monitoring programs, including ground water and radiological.

VTN OF COLORADO, INC., DENVER COLORADO
Engineering Geologist
July 1978 through February 1979

Developed environmental reports and engineering geological studies for proposed construction. Supervised drilling programs, water well design and development, well log interpretation and map preparation (geologic, isopach, structure contour, etc.). Conducted geologic investigations of oil shale mining projects, both in-situ and subsurface-types. Performed engineering geologic foundation studies within highly unstable regions.

ENVIRONMENTAL CONSULTANTS, INC., DENVER, COLORADO
Staff Scientist

Specialized in the areas of engineering geology, environmental geology and computer applications, composite mapping analysis using computer-aided techniques, applied to oil shale development in northwestern Colorado and a highway site selection in New York. Used computer techniques to graphically display and manipulate drilling statistics that were used to determine the reserves of natural gas in the United States. Engineering geology experience included a foundation of study for an urban transit way mall in Denver and analysis of geologic information for a highway site selection study. 1976 -1980

Academic and Professional Credentials

State of Texas *Licensed Geoscientist #2552*
M.S. in Geological Engineering, *Colorado School of Mines*
B.S. in Geology, *Fort Lewis College*

Professional Trade Organizations

New Mexico Mining Association – Board Member
Texas Mining and Reclamation Association – Chairman
Uranium Producers of America – Past Chairman
National Mining Association – Active Member

TEXAS PROFESSIONAL ENGINEER CERTIFICATE

My name is Ronald E. Grant; and, I am a registered professional engineer in good standing in the State of Texas. My registration number is 76132. I report and certify:

1. I have reviewed Section VI - Well Construction and Facility Operations, in the Kingsville Dome Project Renewal Application dated September 24, 2012.

2. I am the engineer who has been responsible for historic UIC activities at the Kingsville Dome Project, have prepared annual reports for the project, and know of no intervening data or results that would cast doubt on the engineering drawings and information that is presented in Section VI.

Certifying to all of the foregoing, I affix my signature and my seal on this 24th day of September 2012 in Kleberg County, Texas:

Ronald Edward Grant

Ronald E. Grant
Registration No. 76132

STATE OF TEXAS
RONALD EDWARD GRANT
76132
LICENSED
PROFESSIONAL ENGINEER

Technical Report For In Situ Uranium Mining
Class III Injection Wells

V. Geology and Hydrology

A. Permit Area Location

Uranium Resources Inc. (URI) proposes to renew its Permit for the Kingsville Dome in situ uranium recovery operation in central Kleberg County. The project is located approximately 8 miles southeast of the City of Kingsville, 4 miles east of the town of Ricardo off FM118, Kleberg County Texas. Figure 1 illustrates the location of the Kingsville Dome Project on a Kleberg County State Highway base.

B. Regional Geology and Hydrology

1. Regional Geology

The regional geology of Kleberg County is documented in the Texas Water Development Board Report #173; the salient information combined with general geological information from URI, Inc.'s initial application is restated in this Section.

The geologic formations, except the alluvium and south Texas eolian plain deposits, crop out in belts that are nearly parallel to the Gulf Coast. Younger formations generally crop out close to the coast and successively older ones farther inland. Because of the different ages of the formations, the outcrops are progressively eroded and dissected inland. For example, the outcrop of the Beaumont Clay and Lissie Formation, undifferentiated, which covers most of Kleberg County, is comparatively uneroded in contrast to the uneven and dissected outcrop of the Goliad Sand farther inland. The alluvium and south Texas eolian plain deposits transgress the other geologic formations and are elongated mostly normal to the Gulf Coast.

The lithology, dip, and thickness of many of the geologic formations change in the direction of the dip; and the lithology and thickness commonly change laterally along the strike. Sand beds may grade laterally into clay or silt within short distances. These sand beds and other beds containing water are interconnected with similar beds on a different level, so that a series of water-bearing beds within a formation, or even within a group of formations, function as a single aquifer. Both dips and thicknesses of the formations increase gulfward, and the clastic sediments composing the geologic formation grade from fluviatile and deltaic sand, silt, and clay in inland areas to predominantly finer sediments that interfinger with brackish and marine sediments near the Gulf Coast and offshore.

a. Topography

The area studied is bordered by the Gulf of Mexico on the east. Generally, the land surface slopes to the east or southeast. The altitude ranges from sea level along the coast to about 250 feet above sea level near the west boundary line of Jim Wells County about 10 miles northwest of Premont. Several small, intermittent, low-gradient streams and their tributaries

August 2, 2015

Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

REVIEWED
AUG 18 2015
By MP

4
UR/84705

CHIEF CLERKS OFFICE
2015 AUG 10 PM 3:01
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Robert De La Rosa.

My mailing address is 706 E. Farm Road 1118, Ricardo, Kingsville, Texas 78363.

My day time telephone number is _____.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I Live ½ mile From Mine.

I would be adversely affected by the proposed permit and major amendment because I have a water well that is ½ mile From mine.

Sincerely,

Robert De La Rosa

signature

M. A. Walsb
3931 Boyd St.
Kingsville, TX 78363

8/7/15

Attn: Clerk
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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Ms. Bridget C. Bohac, Chief Clerk
TCEQ MC-105
P.O. Box 13087
Austin, TX 78711-3087

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COMMISSION
ON ENVIRONMENTAL
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2015 AUG 10 PM 2:59

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August 3, 2015

Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

REVIEWED
AUG 10 2015
By [illegible]

H

UR/84705

CHIEF CLERKS OFFICE
2015 AUG 10 PM 3:0
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Rolando de la Rosa.

My mailing address is 706 FM 1118, Kingsville, Texas 78363.

My day time telephone number is 361-219-7632.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live accross the street.

I would be adversely affected by the proposed permit and major amendment because it could affect my water supply.

Sincerely,

Rolando de la Rosa

signature

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

8/7/15
Attn: Clerk
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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Ms Bridget C Bohac, Chief Clerk
TCEQ MC-105
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Marisa Weber

From: PUBCOMMENT-OCC
Sent: Friday, August 14, 2015 8:38 AM
To: PUBCOMMENT-WPD; PUBCOMMENT-ELD; PUBCOMMENT-OCC2; PUBCOMMENT-OPIC
Subject: FW: Public comment on Permit Number UR02827
Attachments: Kleberg County Hearing Request1.pdf

H
RFR

UR/84705

From: alexc@lf-lawfirm.com [mailto:alexc@lf-lawfirm.com]
Sent: Thursday, August 13, 2015 4:54 PM
To: DoNot Reply
Subject: Public comment on Permit Number UR02827

REGULATED ENTY NAME KINGSVILLE DOME

RN NUMBER: RN102380763

PERMIT NUMBER: UR02827

DOCKET NUMBER:

COUNTY: KLEBERG

PRINCIPAL NAME: URI INC

CN NUMBER: CN600604417

FROM

NAME: David Frederick

E-MAIL: alexc@lf-lawfirm.com

COMPANY: Frederick, Peales, Allmon & Rockwell, P.C.

ADDRESS: 707 RIO GRANDE ST Suite 200
AUSTIN TX 78701-2719

PHONE: 5124696000

FAX: 5124829346

COMMENTS: Please see attached hearing request on behalf of Kleberg County.

MW

FREDERICK, PERALES, ALLMON & ROCKWELL, P.C.
ATTORNEYS AT LAW
707 Rio Grande, Suite 200
Austin, Texas 78701
(512) 469-6000 / (512) 482-9346 (facsimile)
Info@LF-LawFirm.com

Of Counsel:
Richard Lowerre

Ms. Bridget C. Bohac
Chief Clerk
Mail Code 105
Texas Commission on Environmental Quality
P.O. Box 13087
Capitol Station, Texas 78711-3087

August 13, 2015

Regarding: URI, Inc., Application for Renewal and Amendment of a Class III Injection Well Permit, Permit No. UR02827

Dear Ms. Bohac:

My firm represent Kleberg County, Texas, on matters related to URI, Inc. Kleberg County hereby requests a contested case hearing on the above-referenced application. Kleberg County also requests reconsideration of the Executive Director's preliminary decision to approve the application pursuant to the terms of the draft permit.

Kleberg County should be contacted through its legal counsel, my firm (more particularly, by contacting Mr. Brad Rockwell or me). The County's official address is "Kleberg County Courthouse, 700 East Kleberg Ave., Kingsville, Texas 78363." The County's chief administrative officer is its County Judge, Hon. Rudy Madrid, (361) 595-8585 (voice) and (361) 592-0838 (facsimile).

As the Commission may appreciate, Kleberg County has a publicly-expressed and deeply-held commitment to perseveration and protection of the health and safety of Kleberg County citizens and the control of possible groundwater contamination arising from "excursions" of contaminated groundwater from the mine or failure to responsibly restore aquifer conditions to approximately pre-mining conditions. The County's justiciable interests were summarized by the TCEQ Executive Director in his Response to Hearing Requests in Docket 97-1063-UIC, URI's last permit application to this agency. There, at pages 10-11, the ED said:

> Local governments with authority under state law over issues contemplated by the application may he considered affected persons. 30 TAC § 55.29(b)[now, 30 TAC § 55.203(b)]. Among the relevant factors to he

considered is whether a governmental entity has statutory authority over or interest in the issues relevant to the application.30 TAC §53.29(c)(6)[now, 30 TAC § 55.203(c)(6)].

The Kleberg County Commissioners Court is a governmental entity with authority to enforce the sanitation and health protection statutes as provided in Chapters 121,341,361, and 364 of the Texas Health and Safety Code, or the water quality laws as provided in Chapter 26 of the Texas Water Code. Op. Tex. Att'y Gen.No.DM-085(1997) at p.3. This authority includes the authority to enforce laws reasonably necessary to protect public health under Health & Safety Code section 121.003(a), and the authority to institute proceedings to enjoin violations of Health and Safety Code section 341.013(c), which prohibits the storage or disposal of waste in a manner that may cause pollution or contamination of ground or surface water. TEXAS HEALTH and SAFETY CODE §341.092(d); Op. Tex. Att'y Gen. No. DM-085 (1997).

The ED believes that the Kleberg County Commissioner's Court is an affected person under section 55.29 because it has authority over issues contemplated by the application which include contamination of groundwater resulting from the expansion of the production of uranium at the Kingsville Dome project. In its bearing request, the Kleberg County Commissioners Court expressed its commitment to the preservation and protection of the health and safety of Kleberg County citizens and its concern about the possible health effects of groundwater contamination at the Kingsvillle Come Project. This type of health issue, raised by a local governmental entity, is sufficient to support a finding that the County Commissioners Court has "a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application" under section 55.29, and thus the Commissioner's Court appears to be an "affected person."

To this, Kleberg County would add that, inasmuch as the County also has the power to inspect TCEQ-permitted activities for compliance with permit terms, § 26.173, Tex. Water Code, the County has a large stake in the precision of permit terms.

The county also owns groundwater wells that are at risk of contamination by the mining activities. Kleberg County Park and the LE Ramey Golf Course lie just to the NNW of the URI mine and south of Kingsville. The County has water wells at each location that withdraw water from the Goliad Aquifer (the mining aquifer) and that are, because of their locations, downgradient from the URI mine.

The County's criticisms of the ED's preliminary decision and draft permit, as well as other relevant facts, are summarized in the accompanying affidavit and comments of an expert consultant, Mr. George Rice, the County hired to review the draft permit.

These criticisms are mostly grounded in the comment originally offered by Mr. Teo Saenz's comments of May 6, 2013: URI has historically been unable to prevent the mining fluids from migrating beyond the mine area, and this suggests the permit application should be denied.

In light of the foregoing, Kleberg County urges the Commission to grant a contested case hearing in this docket and accord the County "party" status for that hearing. The County also seeks a rehearing of the preliminary decision and draft permit of the Executive Director.

Sincerely,

David Frederick

Xc:

Mr. Dain McCoig, P.E., Vice President
South Texas Operations
URI, Inc.
641 East Farm-to-Market 118
Kingsville, Texas 78363

Executive Director
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Office of Public Counsel
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

STATE OF TEXAS	§	**Re: TCEQ Draft Area Permit No. UR02827**
	§	**Kingsville Dime In-Situ Uranium Mine**
COUNTY OF Bexar	§	
	§	

AFFIDAVIT OF MR. GEORGE RICE, P.G.

Before me, the undersigned notary, on this day personally appeared George Rice, who, being by me duly sworn, testified as follows:

1. My name is George Rice. I am of sound mind and capable of making this affidavit. The facts stated in this affidavit are within my personal knowledge and are true and correct.

2. I have a Master of Science degree in Hydrology from the University of Arizona and have worked as a hydrologist for more than 30 years. I am a licensed Professional Geoscientist in Texas (lic. # 6144).

3. I have studied the effects of the Kingsville Dome Mine on groundwater quality since 2005.

4. The Goliad Aquifer is an important source of water in Kleberg County. It also hosts deposits of uranium ore. Many pumpers, including the City of Kingsville, derive their water from the Goliad Aquifer. The Kingsville Dome Mine, about eight miles southeast of Kingsville, extracts uranium from the Goliad Aquifer.

5. Under natural conditions, groundwater in the Goliad Aquifer near the Kingsville Dome Mine flowed toward the coast. However, heavy pumpage in the vicinity of Kingsville has reversed the hydraulic gradient and groundwater at the mine now flows toward Kingsville (figure 1).

6. Contaminants from mining operations at the Kingsville Dome Mine have migrated beyond the mine boundary, and may continue to do so after mining activities cease. At least one private well has been affected by contaminants from the mine. Mine contaminants could affect wells that serve the City of Kingsville, as well as other wells that derive their water from the Goliad Aquifer.

7. I have prepared comments on TCEQ's Kingsville Dome Mine draft permit. Those comments are attached to this affidavit. Comments 2 and 4 address the issue of contaminants migrating beyond the mine boundary.

FURTHER AFFIANT SAYETH NOT.

George Rice

SWORN TO AND SUBSCRIBED before me on the 13th day of August, 2015.

Notary Public, State of Texas

RICHARD L. SCHOFF
MY COMMISSION EXPIRES
November 12, 2018

Notary's printed name:

RICHARD L. SCHOFF

My commission expires

Nov 12, 2018

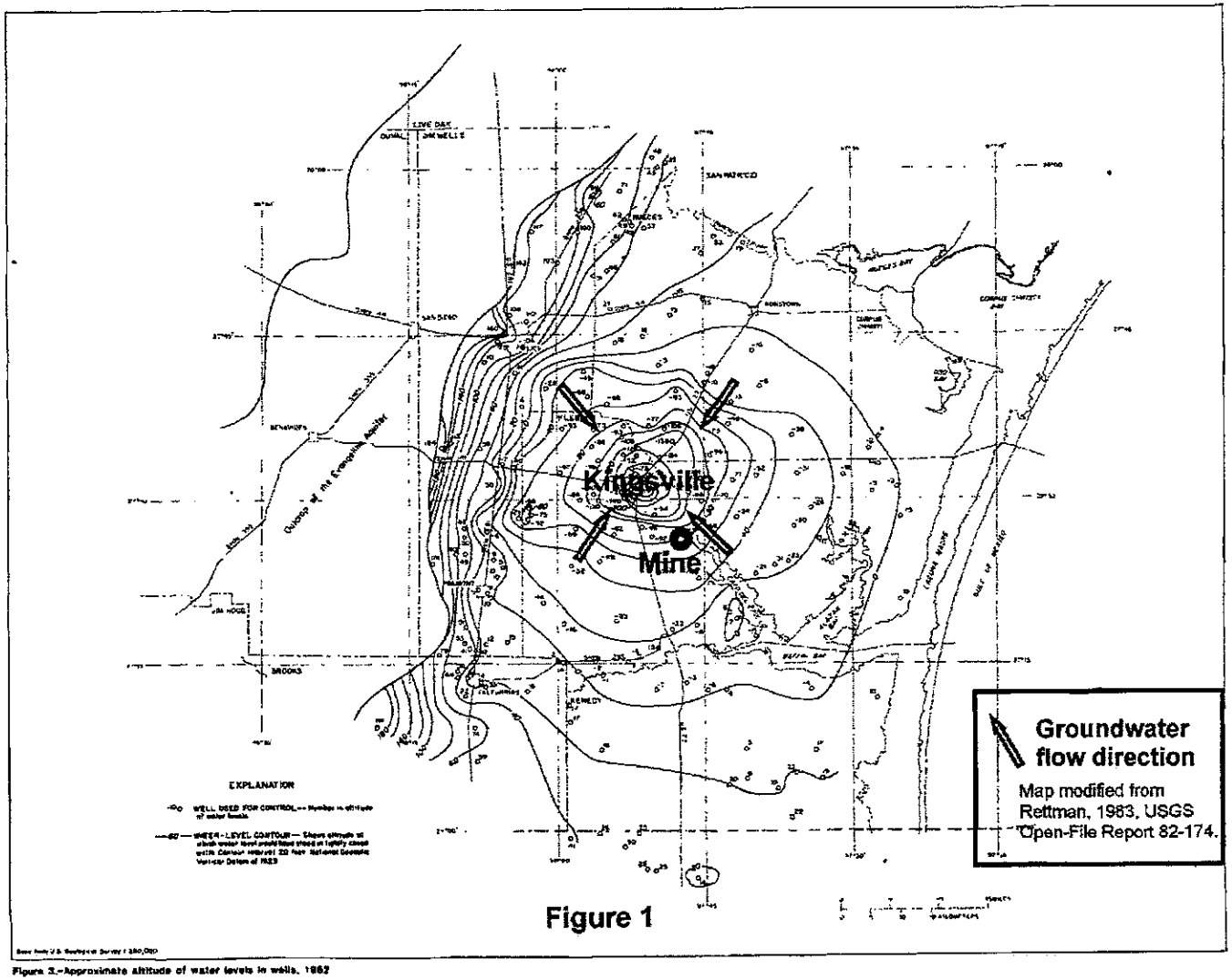

Figure 1

Figure 2.–Approximate altitude of water levels in wells, 1982

Comments on TCEQ's Draft Area Permit No. UR02827 Kingsville Dome In-Situ Uranium Mine

George Rice
August 13, 2015

These comments are based on a review of TCEQ's Draft *Area Permit No. UR02827, Kingsville Dome In-Situ Uranium Mine,* and related documents. It was performed on behalf of Kleberg County.

Comment 1: Section V. A. 3. Permit Range Table values

The permit states that Restoration Table values for any Production Area Authorization (PAA) may not exceed the values in the proposed Permit Range Table (aka Restoration Range Table) (Attachment 4).

The table in Attachment 4 contains proposed maximum values that are significantly higher than the original Restoration Range Table[1]. TCEQ states that the higher maximum values are the result of including pre-mining data from PAA-3 that was not available at the time the original Restoration Range Table was produced[2]. In the case of uranium, this is incorrect.

The proposed value for uranium is 3.75 mg/L, but the highest baseline value for uranium at PAA-3 is 1.54 mg/L. A uranium baseline value of 3.75 mg/L was detected at PAA-2 and this value was known at the time the original Restoration Range Table was produced. But, this value was not used in the original Restoration Range Table. Instead, a value of 1.89 mg/L was used. 1.89 mg/L is the average baseline uranium value for PAA-2. TCEQ does not explain why the original value should be replaced with the higher value.

Comment 2: Section V. E. 1. Monitoring Parameter Upper Limits

The control parameters established in this section are inadequate and will likely result in the failure to recognize the movement of mining solutions into monitor wells (excursions). They are arbitrary, subject to being dominated by unusual parameter values, and biased against declaring excursions[3].

The inadequacy of the control parameters is illustrated by the fact that a number of excursions that occurred in PAA-3 were undeclared. An examination of these excursions is presented in a paper that was published in 2013[4]. This paper is contained in Attachment 1 and its major conclusions are given below.

---

[1] TWC, 1990a, Table 2, page 13.
[2] TCEQ, 2015a, pages 1 and 2; and TCEQ, 2015b, page 2.
[3] Rice, 2006, section 5.
[4] Rice, 2013.

- The injection of leaching fluids at PAA-3 created a hydraulic gradient that caused mining solution to flow from injection wells, toward the monitor well ring.

- The mining solution contained concentrations of uranium that were significantly higher than background concentrations.

- Excursions occurred. That is, mining solution flowed beyond the monitor well ring surrounding PAA-3.

- The excursions reached the Garcia property. They caused uranium concentrations in well W-24 to increase from an average of less than 200 µg/L, to more than 600 µg/L.

TCEQ should revise the control parameters to reduce the likelihood that excursions will go unrecognized.

Comment 3: Section V. F. 1. Sample Collection

The groundwater sampling method described in this section is vague and does not ensure that the sample will be representative of water in the formation. It states that the well shall be pumped until "*conductivity, and pH are relatively constant.*" It does not define the term "relatively constant"[5], it does not specify the number of casing volumes to be removed before samples are collected[6], and it does not require decontamination of sampling equipment.

The permit should specify the methods and techniques required for the collection of water samples, or it should refer to a document that specifies required methods and techniques[7].

Comment 4: Section V. H. 1. Well Plugging and Long Term Monitoring

This section states: *"Within 120 days of completion of final restoration of each PAA, all wells shall be plugged unless revisions of the time requirements are approved by the executive director under 30 TAC §331.86(a)."*

However, post-restoration contaminant concentrations may remain above baseline concentrations, and above EPA drinking water standards[8]. After pre-mining hydraulic gradients are re-established, these contaminants may migrate beyond the mine

---

[5] The Texas Water Development Board recommends the following: pH: ±0.1 pH units, temperature: ±3% specific conductance: ±3% (TWDB, 2003, page 11).
[6] URI states that a minimum of one casing volume will be removed prior to collecting a sample (URI, 2012a, page 49). Most authorities state that when possible, at least three casing volumes should be purged before a sample is collected (see, for example, TWDB, 2003, page 10; and EPA, 2013, page 14.
[7] TWDB, 2003; or EPA, 2013, for example.
[8] For example, the baseline concentration of uranium in PAA-1 is 0.164 mg/L (TWC, 1988a, Attachment A), and the EPA drinking water standard is 0.03 mg/L (EPA, 2004). But under the proposed Permit Range Table (Attachment 4), uranium concentrations up to 3.75 mg/L may be allowed to remain.

boundary. Therefore, groundwater monitoring should continue until reducing conditions are permanently re-established and contaminant concentrations return to their pre-mining levels, or until contaminant concentrations are lower than EPA drinking water standards.

A detailed discussion of this issue contained in Attachment 2.

Comments on URI's Kingsville Dome In Situ Recovery Project Application and Technical Report, December 12, 2012.

According to permit section VIII. B., URI's Application and Technical Report is " ... *incorporated into this permit by reference as if fully set out herein."*

Comment 4: page 21, Effects on Aquifer Users

URI states: "*The result is water quality is not impacted in USDWs beyond the exempted area into the ¼ mile AOR for the Kingsville Dome project. In other words, there is no impact to the regional aquifer that would affect other relevant aquifer uses."*

This statement is incorrect. Mining solutions from the Kingsville Dome Mine have flowed beyond the mine boundary and have entered the Garcia property. They caused uranium concentrations in Garcia well W-24 to increase from an average of less than 200 µg/L, to more than 600 µg/L.[9]

Comment 5: page 22, Values in Table 1

The baseline uranium values given for the PAA-2 production zone are 3189 ppb (average) and 102,000 ppb (high). These values are much higher that the values given in the PAA-2 permit[10]. URI/TCEQ should either give the source of these values or correct them.

References

EPA (U.S. Environmental Protection Agency), 2004, *2004 Edition of the Drinking Water Standards and Health Advisories*, EPA 822-R-04-005, Winter 2004.

EPA 2013, *Groundwater Sampling*, SESDPROC-301-R3, March 6, 2013.

Rice, 2006, *Effects of URI's Kingsville Dome Mine on Groundwater Quality, Final Report*, prepared for the Kleberg County URI Citizen Review Board, July 2006.

Rice, 2013, *Excursions of Mining Solution at the Kingsville Dome In-situ Leach Uranium Mine*, in Austin Geological Society Bulletin, Volume 9, 2013.

[9] Rice, 2013, (Attachment 1 of this report).

[10] The values given in the permit for the production zone monitor wells are 19 ppb (average) and 272 ppb (high). The values for the production zone production area wells are 1890 ppb (average) and 3750 ppb (high). TWC, 1990b, Attachment G.

TCEQ (Texas Commission on Environmental Quality), 2006a, *Authorization to Conduct Underground Injection Under Provisions of Permit No. URO2827-001, Production Area Authorization 3, Mine: Kingsville Dome, Production Area: URO2827-031,* May 4, 2006.

TCEQ, 2007a, *Notice Of Draft Minor Amendment Of A Class III In Situ Uranium Mining Production Area Authorization UR02827PAA1*, June 29, 2007.

TCEQ, 2015a, *Technical Summary and Executive Director's Preliminary Decision*, regarding URI, Inc. In- situ Uranium Mining Project, Underground Injection Control Permit No. UR02827, February 2015.

TCEQ, 2015b, *Decision of the Executive Director Re: URI, Inc. Permit No. UR02827,* and, *Executive Director's Response to Public Comment*, July 14, 2015

TWC (Texas Water Commission), 1988a, *Permit to Conduct Underground Injection Under Provisions of Permit No. URO 2827, Production Area Authorization, Mine: Kingsville Dome Mining Project, Production Area: URO2827-011*, April 12, 1988.

TWC, 1990a, *Permit NO. URO2827, Kingsville Dome Mining Project, Permit to Conduct Underground Injection Under Provisions of Chapters 26 & 27, Texas Water Code,* January 11, 1990. This permit supersedes the permit issued on December 30, 1986.

TWC, 1990b, Authorization to Conduct Underground Injection Under Provisions of Permit No. URO2827-001, Production Area Authorization, Mine: Kingsville Dome, Production Area: URO2827-021, June 28th, 1990.

TWC, 1998, Authorization to Conduct Underground Injection Under Provisions of Permit No. URO2827-001, Production Area Authorization 3, Mine: Kingsville Dome, Production Area: URO2827-031, February 6, 1998. Note: This PAA was voided by the courts. A revised PAA3 is pending (URI, 2005k).

TWDB (Texas Water Development Board), 2003, *A Field Manual for Groundwater Sampling*, Radu Boghici, P.G, Geologist, User Manal 51, March 2003.

URI, 1989a, *Application for Production Area Authorization* 2, July7,1989.

URI, 1997a, *Application for Production Area Authorization URO2827-031*, (PAA-3) June 25, 1997, revised April 9, 2002.

URI, 2012a, *Kingsville Dome In Situ Recovery Project. Application and Technical Report*, December 12, 2012.

Attachment 1

Excursions of Mining Solution at the Kingsville Dome In-situ Leach Uranium Mine

George Rice

Published in Austin Geological Society Bulletin, 2013

Abstract

In-situ leach (ISL) uranium mining differs from conventional mining in that it does not require excavation of ore. Instead, uranium is mobilized by injecting leaching fluids into a groundwater-saturated ore body. The uranium enriched groundwater (mining solution) is then brought to the surface through extraction wells. Approximately 1 to 3 percent more water is extracted from a uranium production well field than is injected. The purpose of this "bleed" is to prevent the escape of mining solution (excursions) by maintaining a hydraulic gradient toward the extraction wells.

The Kingsville Dome Mine is 13 km southeast of Kingsville, Texas. ISL mining began in 1988 and continued intermittently until 2009. The mine covers 864 ha and is divided into three production areas. This paper focuses on production area three (PA-3).

The bleed at PA-3 did not contain the increased pressures caused by injection of leaching fluids. A hydraulic gradient was rapidly established between the injection wells and the mine boundary, as shown by a rise in water levels in monitor wells surrounding PA-3. This gradient drove mining solution beyond the mine boundary. These excursions affected a well on the Garcia property, approximately 300 m down gradient of the mine. Since mining began, uranium concentrations in the Garcia well have increased from less than 200 µg/L, to more than 600 µg/L. This is the first time that contaminants in an off-site domestic well have been linked to ISL uranium mining in the United States of America.

In-situ leach uranium mining

In-situ leach (ISL) uranium mining differs from conventional mining in that it does not require excavation of ore. Instead, uranium is mobilized by injecting leaching fluids into a groundwater-saturated ore body (figure 1). The uranium-enriched groundwater (mining solution) is brought to the surface through extraction wells and routed to a processing plant where the uranium is removed. The uranium-depleted solution is then re-injected into the ore body. This cycle of injection and extraction continues as long as the ore body contains economically recoverable amounts of uranium.

Leaching fluids typically consist of water, oxidants (e.g., oxygen, hydrogen peroxide), and complexing agents (e.g., carbonates, sulfates) (NRC 2007). The oxidants convert uranium from the relatively insoluble U^{+4} state to the soluble U^{+6} state. The complexing agents combine with the oxidized uranium to form anionic or neutral complexes that

remain in solution (e.g., $UO_2(CO_3)_3^{4-}$, $UO_2(SO_4)_3^{4-}$) (Charbeneau 1984). Uranium ore usually contains other toxic constituents such as radium, arsenic, molybdenum, and selenium (NRC 2007). These are also mobilized during ISL mining.

Most ISL mining occurs in fluvial sandstone aquifers (Staub et al. 1986). These fluvial systems are heterogeneous and anisotropic, consisting of interbedded clays, silts, sands, and gravels. They contain paleochannels that act as preferential flow paths, and overbank deposits that impede flow.

Injection and extraction wells are organized in patterns. Figure 2 shows a 5-spot pattern. Other patterns, e.g., 7-spot, are also used. A uranium production well field will usually contain a series of patterns arranged to follow the form of the uranium ore body. Well fields are grouped in production areas, and production areas are surrounded by a ring of monitor wells (NRC 2009).

Approximately 1 to 3 percent more water is extracted from a production area well field than is injected. The purpose of this "bleed" is to prevent the escape (excursion) of mining solution by maintaining a hydraulic gradient toward the extraction wells. An excursion is the flow of mining solution beyond the monitor well ring.

Figure 2 is an idealized depiction of groundwater flow. In practice, excursions are initiated when mining solution flows beyond the capture zones of extraction wells. This may be caused by failure to balance injection and extraction rates, failure to maintain sufficient bleed rates, or when mining solution is diverted by paleochannels.

After mining at a production area is completed, groundwater is supposed to be restored to its pre-mining quality (Texas Administrative Code, Title 30, §331.107). However, groundwater restoration after ISL mining is difficult. The United States Geological Survey reviewed 22 uranium production areas in Texas (USGS 2009). Toxic constituents (e.g., uranium, arsenic, selenium) had been restored to their pre-mining levels at only two of them. In no case had all constituents, including non-toxic constituents such as calcium and sulfate, been restored to their pre-mining levels (USGS 2009). Nonetheless, the Texas Commission on Environmental Quality (TCEQ) considers groundwater restoration to be complete at all 22 production areas (USGS 2009).

ISL mining at Kingsville Dome

The Kingsville Dome (KVD) mine is owned and operated by Uranium Resources Inc. (URI). The mine is in Kleberg County, Texas, approximately 13 km southeast of Kingsville (figure 3). ISL mining began in 1988 and continued intermittently until 2009. The area licensed for mining covers 864 ha (TBRC 1985) and is divided into three production areas (PAs) (figure 4). This paper focuses on PA-3. Unless otherwise noted, all of the site-specific data regarding the KVD mine was obtained from documents submitted by URI to the TCEQ or its predecessor agencies.

There are domestic wells near the mine. All of them are monitored for uranium and other constituents associated with ISL mining. Two of them, the Garcia wells, are directly down gradient of PA-3 (figure 4).

The ore occurs in the Goliad Aquifer, a fluvial deposit consisting of interbedded clay, silt, and sand (Rice 2006). The ore is found between about 150 m and 225 m below land surface. The principal uranium minerals are believed to be uraninite (UO_2) and coffinite ($U(SiO_4)(OH)_4$) (McKnight 2006).

The groundwater is confined (Rice 2006) and generally flows toward the northwest (TBRC 1985). The current flow direction is not the natural direction. Under natural conditions, groundwater flowed southeast, toward the coast. However, pumpage in the vicinity of Kingsville reversed the hydraulic gradient and groundwater now flows toward Kingsville (Rettman 1983). Local groundwater flow directions vary. Calculated flow rates range from about 0.3 m/yr to 100 m/yr (Rice 2006). This range reflects the heterogeneity of the fluvial deposits. It should be noted that these flow rates are for non-mining conditions. During mining, local flow rates may be much higher due to the steep gradients caused by the operation of injection and extraction wells.

The leaching fluid used at the KVD mine is oxygenated water. Table 1 shows typical concentrations of constituents in the mining solution. URI uses a computerized model to adjust injection and extraction rates, but the model does not account for aquifer heterogeneities (Grant 2006). URI maintains a bleed of approximately one percent. The bleed is supposed to continue until groundwater restoration is completed, but URI has not always maintained the bleed as required (TCEQ 2003).

Table 1
Concentrations of Constituents in a Typical Mining Solution at the KVD Mine*

pH (SU)	Electrical conductivity (µmhos/cm)	Uranium (µg/L)	Chloride (mg/L)	Calcium (mg/L)	Bicarb-onate (mg/L)	Sulfate (mg/L)	Molyb-denum (mg/L)
6.6	4000	80,000	600	400	800	1200	10

*URI analysis of mining solution from extraction wells. It may be a mixture of mining solutions from many extraction wells. Data from Mark Pelizza of URI, 2005.

The Effects of Mining on Hydraulic Gradients at PA-3

Excursions are driven by hydraulic gradients. During mining at PA-3, the hydraulic gradients driving excursions were the result of the injection of leaching fluids.

PA-3 covers 151 ha. Mining at PA-3 first began in June 1998 and was suspended in June 1999. During this first period, uranium was produced from well fields 9 and 10 (figure 5). Mining resumed in January 2007 and was suspended again in June 2009. During this second period, uranium was produced from well fields 13, 14, 15a, 16a, 16b,

17a and 17b. Well field 15b was installed but was not used to produce uranium (Van Horn 2012). Well field injection rates ranged from about 1400 L/min to 5000 L/min (TCEQ 2008; URI 1999). Complete well field injection data are not available. A request to URI for additional data was refused (URI 2012b).

PA-3 is surrounded by a ring of 49 monitor wells. Water levels have been measured in all the monitor wells, but the lengthiest records are from seven wells monitored under an agreement between URI and Kleberg County. Beginning in 2005, water levels were measured in wells MW-78, MW-83, MW-85, MW-89, MW-97, MW-102, and MW-125. Water levels in these wells were measured quarterly when mining was not taking place, and twice a month during mining. Water levels from these seven wells are used in the discussion below.

The injection of leaching fluids had a rapid effect on water levels in the monitor wells. The effect can be seen by comparing water levels before, during, and after mining. Water levels rose an average of 1.7 m in the year after the resumption of mining (table 2), and fell an average of 2.3 m in the year after the suspension of mining (table 3). Figure 6 shows water levels in two monitor wells for the one year periods immediately before and after mining resumed.

Table 2
Water Level Rises in Response to Resumption of Mining*

Well ID	Average depth to water in the year before mining resumed (Dec 2005 – Dec 2006, m btoc**)	Average depth to water in the year after mining resumed (Jan 2007 – Dec 2007, m btoc)	Average rise in water level in year after mining resumed (m)
MW-78	36.21	34.53	1.68
MW-83	39.40	37.29	2.11
MW-85	40.45	37.77***	2.68
MW-89	37.69	36.67	1.02
MW-97	36.80	35.61	1.19
MW-102	37.28	35.84	1.44
MW-125	34.06	32.37	1.69
		Average of all wells:	1.67

* URI, 2012a. The average bleed rate during the year preceding mining was 62 L/min (URI 2007a, no pumping for restoration appears to have occurred during this period). The average bleed rate during the first three quarters of mining was 67.8 L/min (URI 2007b and 2008). There was no bleed during the remaining period of mining.
** btoc: below top of casing.
*** With outlier removed. The outlier (56.48 m Aug 13, 2007) was approximately 18 m lower than any other measurement (URI 2012a). The average depth without removing the outlier was 38.58 m.

Table 3
Water Level Declines in Response to Suspension of Mining*

Well ID	Average depth to water in the year before mining suspended (June 2008 – May 2009 m btoc)	Average depth to water in the year after mining suspended (June 2009 – May 2010 m btoc)	Average decline in water level in year after mining suspended (m)
MW-78	35.27	37.71	2.44
MW-83	37.47	40.27	2.80
MW-85	39.45	42.00	2.55
MW-89	37.08	39.46	2.38
MW-97	36.44	38.60	2.16
MW-102	36.90	38.79	1.89
MW-125	33.27	35.38	2.11
		Average of all wells:	2.33

* URI 2012a. The average pumping rate (bleed plus restoration) during the year following mining was 428 L/min (URI 2010).

This rapid effect on water levels is to be expected. In a confined aquifer, changes in head are quickly propagated in response to the extraction or injection of water (Kruseman and De Ridder 1976). A similar response was seen during a pumped aquifer test at the KVD mine. In that test, water levels more than 1200 m from the pumped well began dropping less than ten hours after pumping began (TBRC 1985).

The rise in water levels shows that the bleed did not contain the increased pressures caused by injecting leaching fluids. The increased pressures were propagated beyond the monitor well ring, creating a gradient between the injection wells and monitor wells. Mining solution flowed down this gradient, toward the monitor wells. This resulted in excursions.

Excursions at PA-3

Excursions are monitored by measuring the concentrations of uranium and chloride, and the value of electrical conductivity (EC) at the monitor well ring. Monitor wells are sampled quarterly when mining is not taking place, and twice a month during mining.

Excursions at PA-3 are most readily identified by increases in uranium concentrations. This is because the concentration of uranium in the mining solution is more than 1000 times greater than the groundwater background concentration, while the concentration of chloride and the value of EC are only about two times greater than background (table 4).

Table 4
Uranium, Chloride, and EC Values In Mining Solution and Background Groundwater at PA-3

Parameter	Typical mining solution value	Range of background values*	Average background values*	Ratio of mining solution value to average background value	EPA drinking water standard**
Uranium (µg/L)	80,000	< 0.001 - 187	41	1950	30 µg/L
Chloride (mg/L)	600	214 - 443	282	2.1	250 mg/L
EC (µmhos/cm)	4000	1600 - 2590	2017	2.0	NA

* Pre-mining values in monitor well ring surrounding PA-3 (URI 1997).
** The uranium standard is a primary maximum contaminant level (MCL). MCLs are health-based and legally enforceable. The chloride standard is a non-enforceable secondary standard based on aesthetic effects (e.g., taste, odor) (EPA, 2009). NA: not applicable.

Given the values in table 4, a mixture of 2% mining solution and 98% background groundwater would have the following values of uranium, chloride, and EC.

Uranium: 0.02 (80,000 µg/L) + 0.98 (41 µg/L) = 1640 µg/L
Chloride: 0.02 (600 mg/L) + 0.98 (282 mg/L) = 288 mg/L
EC: 0.02 (4000 µmhos/cm) + 0.98 (2017 µmhos/cm) = 2057 µmhos/cm

Thus, a mixture of several percent mining solution with background groundwater could be readily identified by the increase in uranium concentrations, but the chloride and EC values would be difficult to distinguish from background values.

At least two factors act to reduce concentrations in the sampled mining solution. As the mining solution travels from the well field to the monitor well ring, hydrodynamic dispersion dilutes the concentrations of uranium and other constituents. There is also an apparent reduction in concentrations resulting from the design of the monitor wells. The well screens are 30 m long. Therefore, a plume of mining solution that is less than 30 m thick will be diluted by native groundwater when it is pumped from the well.

It should be noted that it is not necessary for uranium to travel from the well fields to the monitor well ring in order to increase uranium concentrations in the monitor wells. If uranium is present in the formation near the monitor wells, uranium concentrations can be increased by the arrival of oxidizing mining solution.

Apparent excursions of mining solution have been detected 21 times at PA-3 (table 5, and figures 5 and 7). More excursions have probably occurred, but URI does not report the values of uranium concentrations that are less than 1000 µg/L (see below).

Table 5
Monitor Wells with Elevated Uranium Concentrations

Well ID	Background U concentration (µg/L)	U concentration during excursion (µg/L)	Date U detected
MW-74	21	3200	11/16/06
MW-89	22	1690	8/17/07
MW-90	24	1320	8/17/07
MW-90	24	1060	11/27/07
MW-91	31	2140	8/17/07
MW-91	31	1500	3/5/08
MW-92	36	1670	8/17/07
MW-92	36	1440	10/11/07
MW-92	36	1300	4/16/08
MW-93	37	2500	10/11/07
MW-98	59	1100	4/18/11
MW-100	30	3600	8/17/07
MW-101	53	2520	8/17/07
MW-102	20	1300	11/7/06
MW-102	20	5170	8/17/07
MW-103	16	2790	8/17/07
MW-104	36	2140	8/17/07
MW-105	31	2320	8/17/07
MW-106	32	3900	11/7/06
MW-106	32	1260	8/17/07
MW-118	101	1170	10/19/07

The uranium concentrations shown in table 5 would not be considered excursions by TCEQ. According to TCEQ, an excursion has not occurred unless uranium concentrations exceed 6540 µg/L (TCEQ 2006).

Quality of analytical data and false positives

The uranium concentrations cited in this paper come from analyses performed by commercial laboratories and by URI's in-house laboratory. The background samples and samples from the Garcia wells were analyzed by commercial laboratories. All the monitor well samples, except the background samples, were analyzed by URI's laboratory.

There are two problems with the analyses produced by URI's laboratory. First, although TCEQ accepts the results, problems with their accuracy have been documented (Rice

2006). Second, when reporting uranium concentrations for monitor wells, URI reports only those values greater than 1000 µg/L. If a value does not meet this threshold, it is reported either as less than 1000 µg/L, or as zero. Zero is not an analytical result. It means that the concentration is below the detection limit. In this case, the detection limit appears to be about 20 µg/L (URI 2005). Thus, the uranium analyses reported by URI's laboratory fall into three groups: less than 20 µg/L, between 20 µg/L and 1000 µg/L, and greater than 1000 µg/L. The author has asked URI for the laboratory data showing uranium values below the 1000 µg/L threshold. URI refused (URI 2012b).

The problems with URI's uranium analyses raise the possibility that URI might have reported false negatives or false positives. In the absence of additional data, individual false negatives cannot be identified. But false positives may be identified by examining the circumstances associated with analytical results.

Figure 7 is a timeline showing the 21 uranium detections greater than 1000 µg/L. Four of the detections may be false positives because they are inconsistent with the history of mining at PA-3. Three of the four are from samples collected in November 2006, approximately two months before mining resumed. The fourth is from a sample collected in April 2011, almost two years after mining was suspended. There are other possible explanations for these four detections. The 2006 detections could be the result of pre-mining activities (e.g., testing of injection wells), or they could represent slow-moving, remnant solution from mining that occurred in 1998 and 1999. The 2011 detection could also be the result of slow-moving solution from earlier mining. At best, these four detections are suspect.

There are several reasons to believe that the other 17 uranium detections shown in figure 7 are not false positives. First, all of them occurred during mining. Second, all of them occurred after water levels in the monitor wells rose sharply in response to mining. This rise indicates that mining solution was being driven toward the monitor wells. Third, with one exception, the 17 detections are grouped in two clusters of wells: MW-89 – MW-93 and MW-100 – MW-106 (table 5 and figure 5). If the detections were false positives, one would expect them to be distributed randomly around the monitor well ring. In four of the wells, values greater than 1000 µg/L were detected more than once (table 5).

A suspicious feature of the detections shown in figure 7 is that 11 of them are from samples that were collected on one day, August 17, 2007. These detections could have been the result of problems in URI's laboratory. However, there are reasons to believe that this is not the case. First, a total of 27 samples were collected on August 17, 2007. Sixteen of the analytical results from that day were below 1000 µg/L. Second, all 11 detections occurred in the two well clusters mentioned above. Third, the 11 detections are not temporally isolated. That is, they are not anomalies that were preceded and followed by non-detections. The 11 wells where the detections occurred were sampled in the two-month periods immediately before and immediately after August 17, 2007. Seventeen samples were collected in the two-month period before August 17th. All of the results were between 20 µg/L and 1000 µg/L. Thirty samples were collected in the

two-month period after August 17th. Twenty eight of the results were between 20 µg/L and 1000 µg/L, one result was less than 20 µg/L, and one result was more than 1000 µg/L.

Although there are problems with the uranium analyses performed by URI's laboratory, careful consideration of the data leads to the conclusion that most of the uranium detections are not false positives.

Garcia wells

The Garcia family used to drink water from two wells on their property, W-24 and W-25 (figure 5). These wells are about 60 m apart, and less than 300 m northwest of PA-3. Both of them are completed in the Goliad Aquifer (figure 8). Their depths are approximately 180 m and 240 m (Saenz 2012a). Well W-24 is now used only to water cattle and goats, and W-25 is no longer used (Saenz 2012a).

Water from wells W-24 and W-25 has been sampled since 1996, if not earlier; the records are unclear (figure 9). Before mining began at PA-3, the average concentration of uranium was 180 µg/L. The uranium was probably due to the presence of uranium ore in the Goliad Aquifer where the Garcia wells are completed.

Until late 2005, water from both Garcia wells was pumped to a single tank, and analyses were performed on samples from the tank. The only exception to this was in June 1998, when separate samples were collected from wells W-24 and W-25. The uranium concentrations were 152 µg/L and 167 µg/L, respectively. Since late 2005, W-24 has been sampled nine times and W-25 one time. The samples from W-24 had an average concentration of 670 µg/L, and the sample from W-25 had a concentration of 10.4 µg/L.

The cause of the low concentration in W-25 is unknown. W-25 no longer contains a pump. At the time it was sampled, W-25 had been unused for about two years and the sample may have been affected by deterioration of the well casing (e.g., occlusion of uranium by precipitating iron). The sample was collected by the author after purging three bore volumes. At the beginning of the purge, the water appeared to be black. When the sample was collected, the water was lightly tinted.

There are two possible causes of the increased uranium concentrations in W-24. First, concentrations in W-24 may have always been high, but were diluted in the tank by low concentrations from W-25. Second, they represent excursions from PA-3.

There are two problems with the first possibility. First, when W-24 and W-25 were individually sampled in 1998, the uranium concentrations were about equal. Second, the volume of water pumped into the tank by each well appears to have been about the same. Three horse-power pumps were installed in both wells, and when the storage tank was filled, both wells turned on and off at the same time. (Saenz 2012b). When the author sampled the wells in December, 2008, both wells produced water at a rate of

about 35 L/min. An equal mixture of waters containing 10 µg/L and 670 µg/L uranium would contain 340 µg/L uranium. This is almost twice the average value measured in the tank between 1996 and 2005.

There is also a problem with the second possibility. The increased uranium concentrations in W-24 were first detected in late 2005, but excursions at PA-3 were not reported until 2007. However, unreported excursions, that is excursions where the uranium concentration did not reach the 1000 µg/L threshold, probably did occur. This possibility is supported by the following. First, the increased concentrations occurred after mining began at PA-3. Second, the general direction of groundwater flow from PA-3 is toward the Garcia wells, and flow may have been accelerated by pumping of the Garcia wells. Third, excursions have been detected in monitor wells less than 600 m from the Garcia wells (figure 5).

The available data indicate that the likely source of the increased uranium concentrations in the Garcia well is PA-3. To the author's knowledge, this is the first time that contaminants in an off-site domestic well have been linked to ISL uranium mining in the United States of America.

Conclusions

Although there are uncertainties associated with some of the available information, a conservative assessment leads to the following conclusions.

- The injection of leaching fluids at PA-3 created a hydraulic gradient that caused mining solution to flow from injection wells, toward the monitor well ring.
- The mining solution contained concentrations of uranium that were significantly higher than background concentrations.
- Excursions occurred. That is, mining solution flowed beyond the monitor well ring surrounding PA-3.
- The excursions reached the Garcia property. They caused uranium concentrations in well W-24 to increase from an average of less than 200 µg/L, to more than 600 µg/L.

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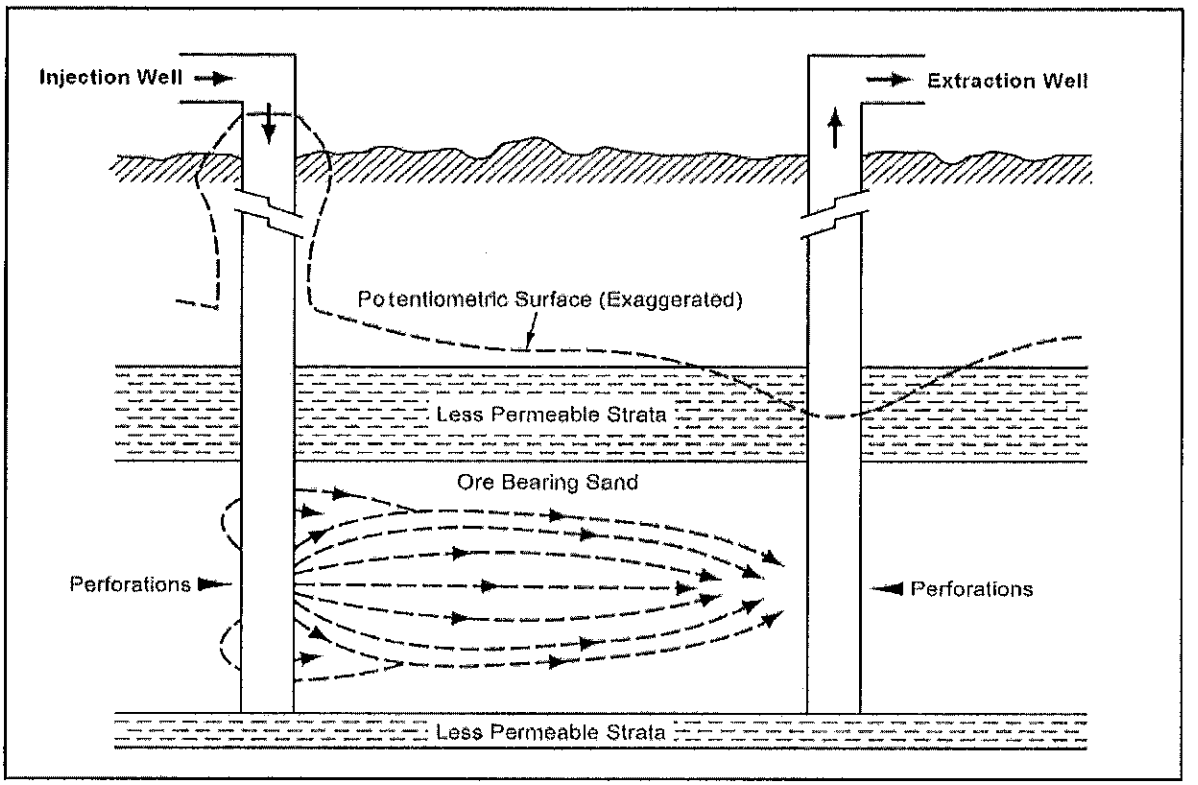

Figure 1
Schematic Cross Section, Injection and Extraction Wells (adapted from NRC 2009)

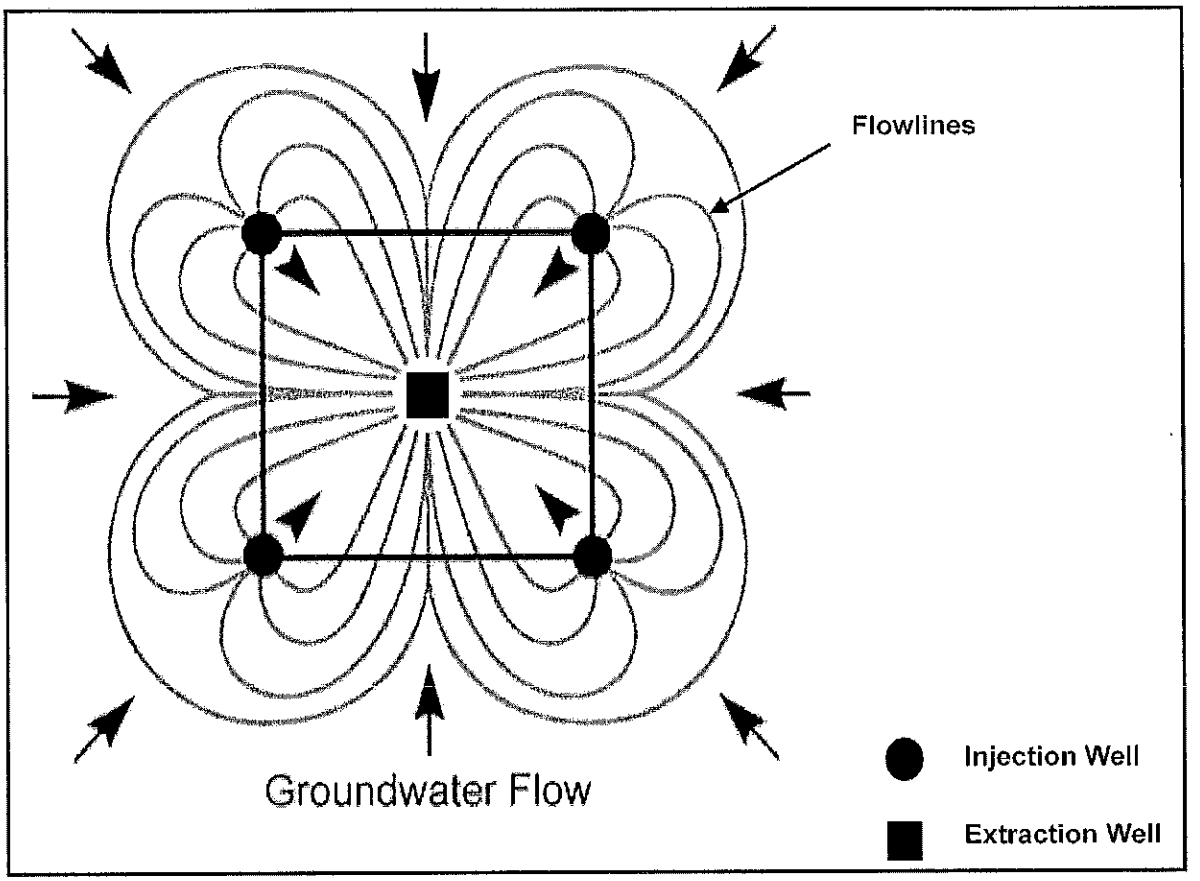

Figure 2
Schematic, 5-spot Injection-Extraction Well Pattern (Adapted from NRC 2009)

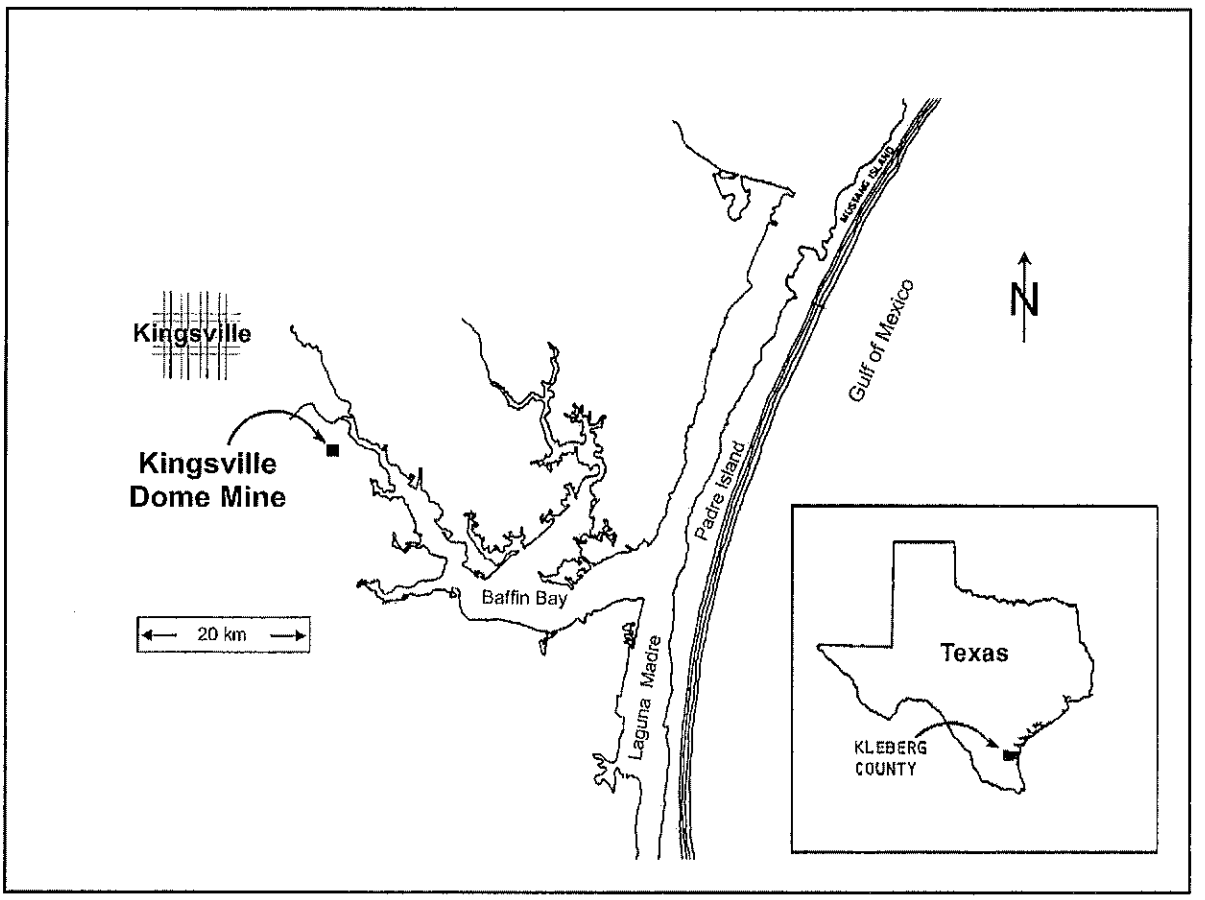

Figure 3
Mine Location Map

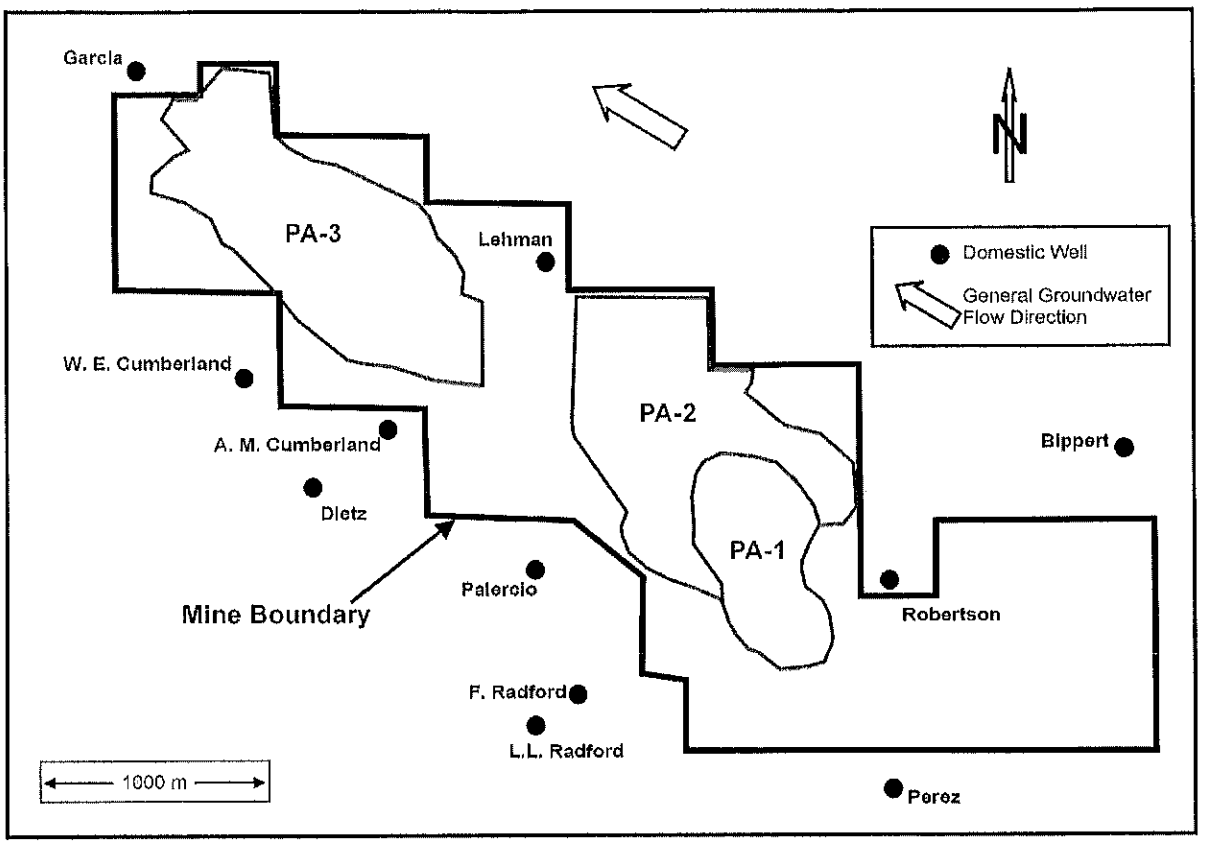

Figure 4
KVD Mine Map

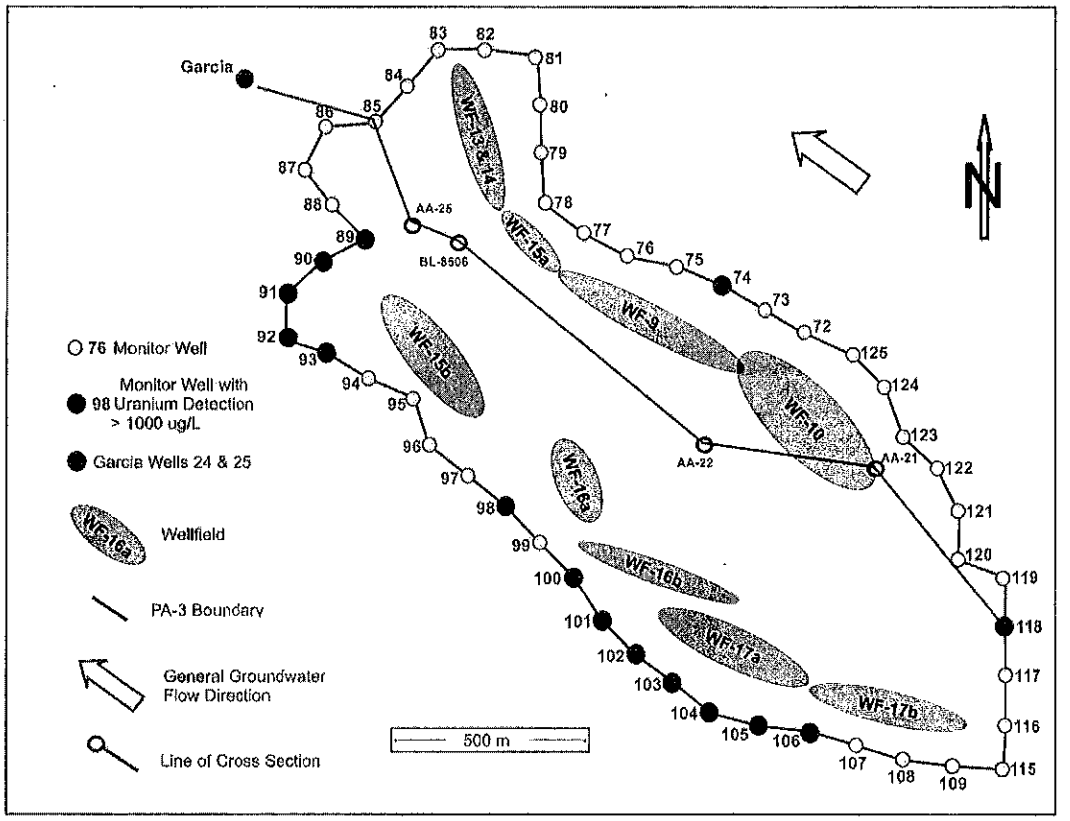

Figure 5
PA-3, Well Fields and Monitor Wells

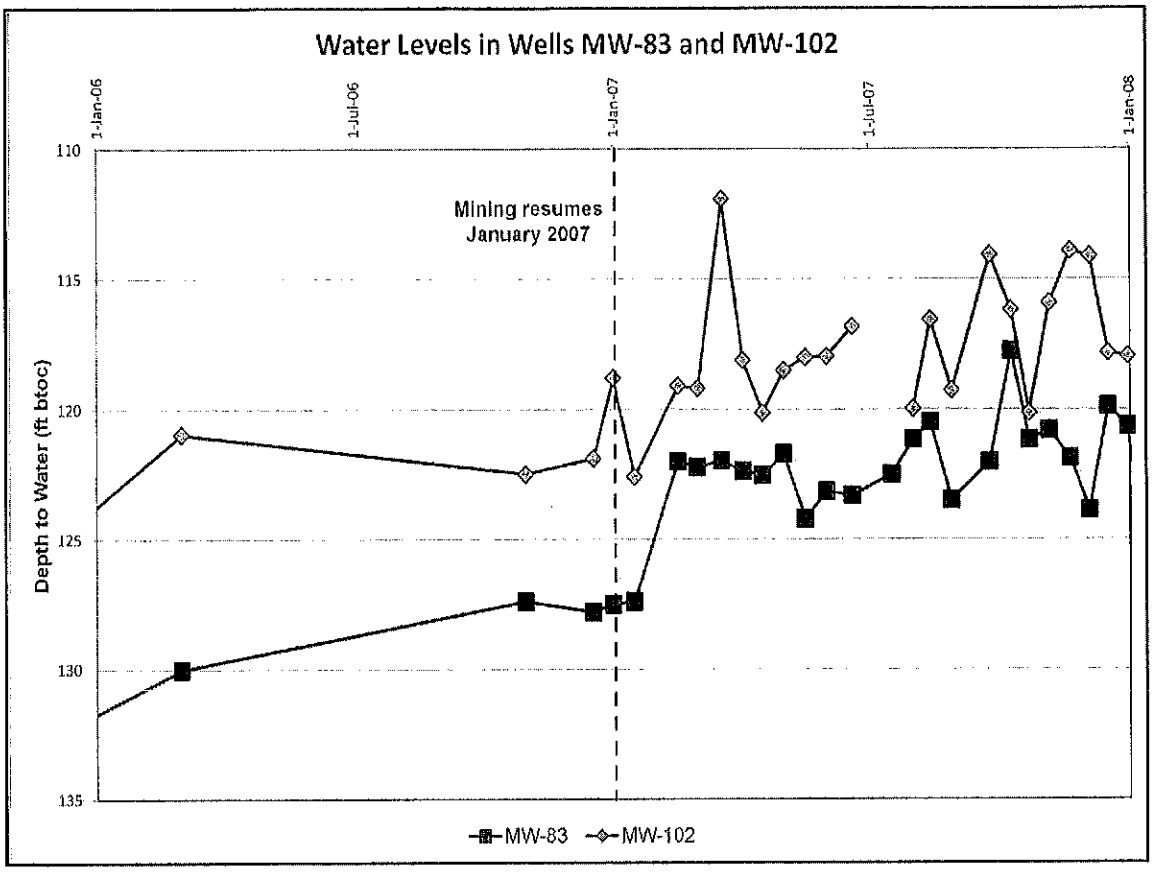

Figure 6
Response of Water Levels to Injection of Leaching Fluids

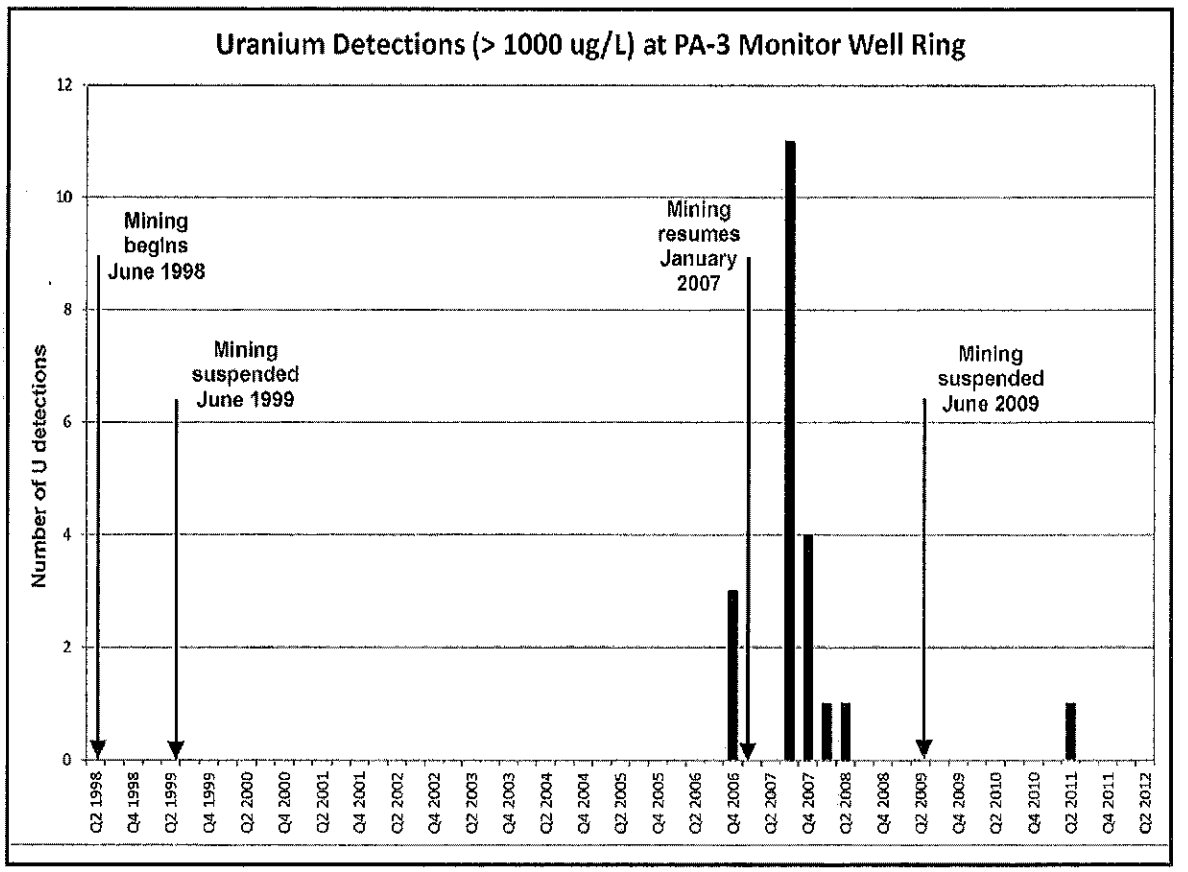

Figure 7
Timeline of Uranium Detections at PA-3

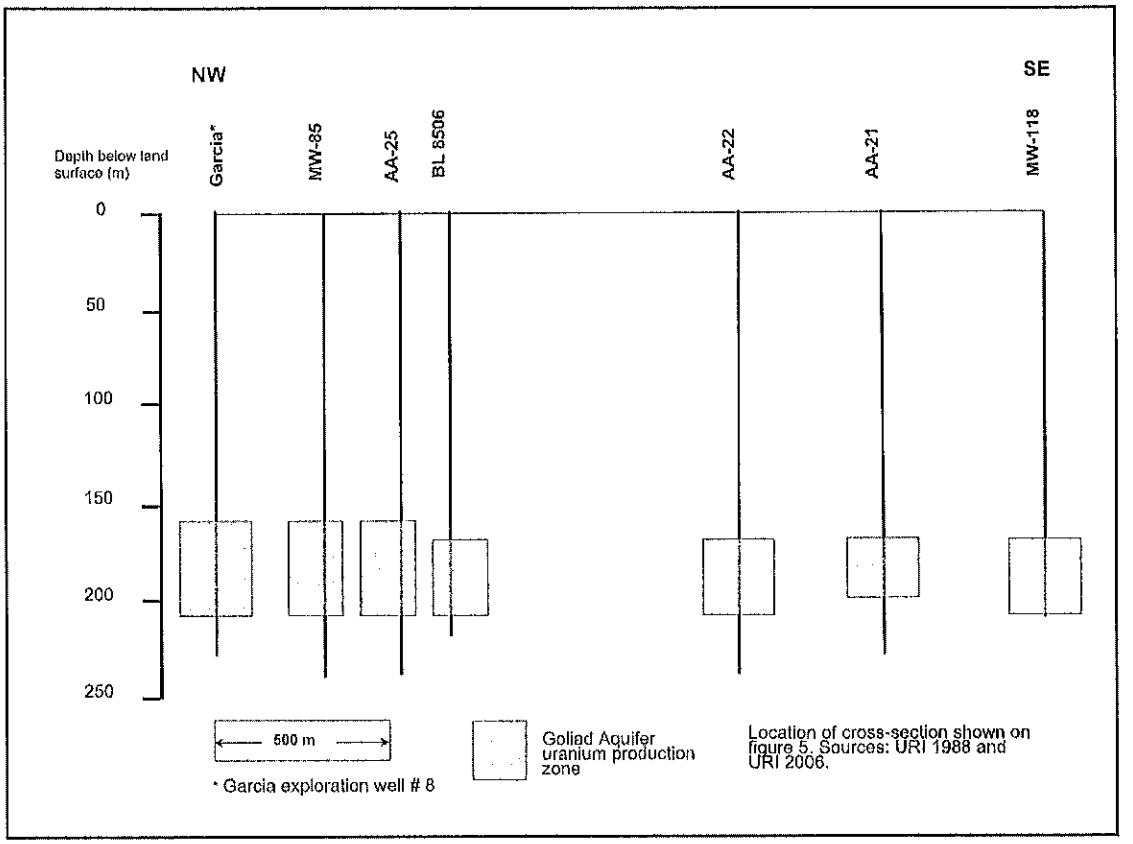

Figure 8
Cross section through PA-3 and Garcia property

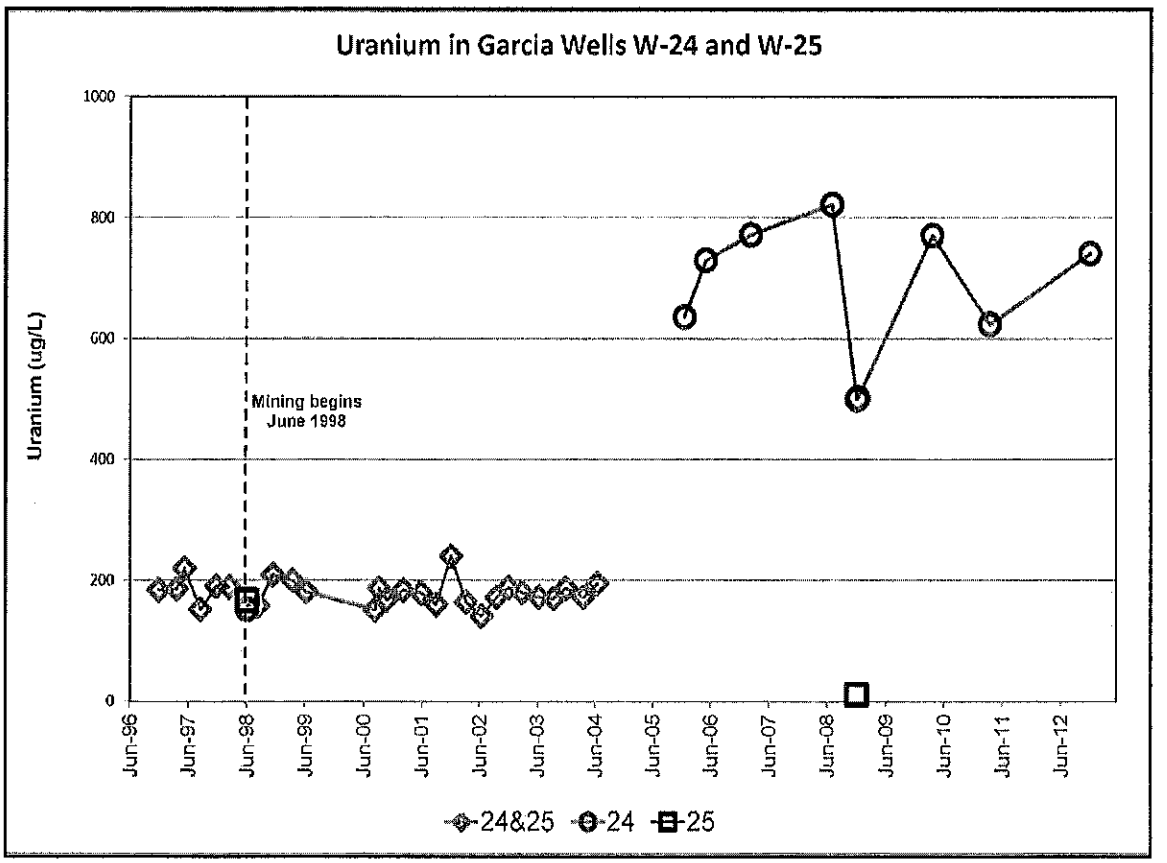

Figure 9
Uranium Concentrations in Garcia Wells

Attachment 2

Long Term Groundwater Monitoring at the Kingsville Dome Mine

Excerpt from Rice, 2006

7.5 Potential Consequence of Failure to Restore Groundwater Quality

Mining has increased the concentrations of a number of constituents (e.g., uranium, sulfate, molybdenum) in groundwater within the mine boundaries. In many cases concentrations remain above both baseline levels and EPA drinking water standards. If restoration fails to remove all of this contaminated groundwater, that which remains may adversely affect wells beyond the mine boundary.

Currently, the hydraulic gradients created by pumping for restoration and bleeds act to confine the affected groundwater within each PAA. Once this pumping stops, pre-mining gradients will be re-established and the affected groundwater may be transported beyond the mine boundaries.

The flow rate of the affected groundwater depends on local conditions. Some groundwater at the KVD Mine travels very slowly (< 10 ft/yr). This would not represent a threat to nearby wells for decades, or perhaps centuries. On the other hand, some groundwater travels relatively rapidly (> 100 ft/yr). This could adversely affect nearby wells in a decade or less.

It might be argued that the post-restoration migration of mining solutions won't be a problem. This is based on the premise that the oxidizing conditions created by mining (see section 3.2) are temporary. After mining and restoration ceases, the natural reducing conditions will be re-established. Reducing conditions will result in the precipitation (removal) of uranium and other constituents associated with the ore[11]. In addition, other attenuation mechanisms such as dispersion and sorption (geochemical attenuation) will act to decrease contaminant concentrations[12].

However, there is no guarantee that reducing conditions will be quickly re-established, or even that they will be re-established at all[13]. There is little if any indication that reducing conditions are being re-established at the KVD mine[14]. Although it has been more than five years since mining ceased in PAAs 1 and 2, concentrations of uranium, molybdenum,

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[11] NRC, 1983, page 31.
[12] Appendices G and H, comment 16; and Demuth and Schramke, 2006, pages iii and 36.
[13] NRC, 2005, page 17.
[14] URI has measured the oxidation/reduction potential of groundwater at the KVD Mine, but records of the measurements were discarded (Mike Maxson of URI, December 2005).

and sulfate remain well above their baseline levels[15]. Radium-226 concentrations also remain elevated[16].

There have been attempts to artificially restore reducing conditions at some in-situ uranium mines. However, the artificially restored reducing conditions may not persist for long periods of time[17].

URI's statements regarding the re-establishment of reducing conditions and the effectiveness of dispersion and sorption are not based on data from the KVD Mine[18]. URI has not performed a thorough investigation of these factors at the KVD Mine[19]. URI has proposed investigating these factors in the future[20].

If post-restoration concentrations remain above baseline levels and EPA drinking water standards, URI should be required to establish a long term monitoring program, and if necessary, restoration program at the mine. These programs should be designed in cooperation with the CRB.

How long should long-term monitoring be conducted? According to URI, the portion of the aquifer that was oxidized as a result of mining will eventually return to its original, reduced state[21]. As a result, redox-sensitive metals[22] such as uranium will be precipitated[23]. Thus, it seems reasonable to continue monitoring until redox conditions are permanently re-established and contaminant concentrations return to their pre-mining levels.

The issue of post-restoration contamination is also discussed in appendix H, responses to comments 2, and 16.

Appendix H
Response to URI's Comments on Draft Report of April 10, 2006

URI's comments are contained in: *Report to the Kleberg County Citizen Review Board,* May 12, 2006[24]. A summary of those comments is presented in appendix G.

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[15] See table 7.4-1.
[16] Compare values in tables 7.3.5.1-1 and 7.3.5.2-1 with the values in appendix F. The re-establishment of reducing conditions will not decrease radium-226 concentrations (Demuth and Schramke, 2006, pages ii and 32).
[17] At the Ruth, Wyoming in-situ uranium mine, hydrogen sulfide was injected into the production zone to restore reducing conditions. Subsequent monitoring indicated that oxidizing conditions began to reappear in less than a year (NRC, 2005, pages 17 and 18).
[18] Appendices G and H, comments 2 and 16.
[19] Although URI has measured the oxidation/reduction potential of groundwater at the KVD Mine, records of the measurements were not kept (Mike Maxson of URI, December 2005).
[20] Appendix G, recommendations for additional work; and Demuth and Schramke, 2006, pages 41 and 42.
[21] URI, 2006f, comments 2 and 16; and Demuth and Schramke, 2006, page iii.
[22] Redox sensitive constituents are those that are affected by changes in the oxidation-reduction potential of the groundwater. They include uranium, molybdenum, and sulfate.
[23] URI, 2006f, comments 2, 15, and 16. Also, Demuth and Schramke, 2006, pages iii and 41.
[24] URI, 2006f.

URI comment 2

During mining concentrations of uranium, molybdenum, bicarbonate, calcium, chloride, sulfate, and Total Dissolved Solids (Conductivity) were significantly higher than pre-mining concentrations and provide a distinct chemical signature that distinguishes "leach solution" from unaffected groundwater[6].

Response:

This comment concerns the effects of mining on groundwater quality, and the processes that will act to restore groundwater quality after mining ceases.

URI claims that after mining ceases, reducing conditions will be re-established. This will result in a decrease in the concentrations of uranium and other redox[25] sensitive constituents. This may be true. However, the re-establishment of reducing conditions, if it occurs, may take a long time.

There is little if any indication that reducing conditions are being re-established at the KVD mine[26]. It has been more than five years since mining ceased in PAAs 1 and 2. Concentrations of uranium, molybdenum, and sulfate remain well above their baseline levels[27]. Radium-226 concentrations also remain elevated[28]. The re-establishment of reducing conditions will not decrease radium-226 concentrations[29].

If they are not cleaned up, the remaining contaminants pose a risk to nearby groundwater resources. After restoration ceases they may be transported beyond the mine boundaries[30].

URI Comment 16

Even if restoration does not remove all elevated ISR constituents in groundwater, dispersion and attenuation make it is highly unlikely that groundwater could migrate beyond the mine boundaries after natural hydraulic gradients are reestablished.

Response:

This comment concerns the fate of the contaminants that will remain after restoration ends.

URI makes the following claims:

---

[25] Redox sensitive constituents are those that are affected by changes in the oxidation-reduction potential of the groundwater. They include uranium, molybdenum, and sulfate.
[26] URI has measured the oxidation/reduction potential of groundwater at the KVD Mine, but records of the measurements were discarded (Mike Maxson of URI, December 2005).
[27] See table 7.4-1.
[28] Compare values in tables 7.3.5.1-1 and 7.3.5.2-1 with the values in appendix F.
[29] Demuth and Schramke, 2006, pages ii and 32.
[30] See section 7.5.

1. Dispersion and geochemical attenuation make it highly unlikely that contaminants will migrate beyond the mine area.

2. Long-term monitoring is not practical.

3. URI will conduct additional analyses to demonstrate that the downgradient transport of contaminants will be limited by dilution and geochemical attenuation.

4. The portion of the aquifer that was oxidized as a result of mining will return to its original, reduced state. As a result, redox-sensitive metals such as uranium will be precipitated.

Item 1, Dispersion, geochemical attenuation, and migration

This is possible. However, it is equally possible that contaminants will migrate beyond the mine area. URI has not collected any data regarding dispersion or other attenuation mechanisms at the KVD Mine. URI claims to have measured the redox potential at the mine, but to have discarded the data[31]. URI's optimistic predictions are based on hydraulic and geochemical properties that they haven't measured.

Item 2, Long-term monitoring not practical

URI does not give any information to support this claim.

Item 3, URI will conduct analyses to demonstrate that migration will be limited

Presumably, such analyses will rely on the use of computerized models. Models can be used to predict future conditions. If the modeling is done properly, their results may approximate future conditions and may be used to design more effective and efficient restoration and monitoring systems. On the other hand, the modeling results may be little more than techno-nonsense.

For a modeling project to yield realistic results, the entity performing the modeling must have 1) skilled personnel, and 2) the site-specific data required to conduct realistic simulations[32]. URI may have access to skilled personnel, but they do not have the site-specific data.

However, even if modeling efforts are properly conducted, their results cannot replace real data. As stated above, models may be used to design monitoring systems, but they cannot replace monitoring.

---

[31] See section 7.5.

[32] This includes hydraulic data (e.g., groundwater velocities and dispersivities) and geochemical data (e.g., redox potentials and partition coefficients).

Item 4, Reducing conditions will be re-established and redox-sensitive metals will be precipitated

This is the essentially the same issue discussed in comment 2. A slightly modified version of the response to comment 2 is repeated here.

Reducing conditions may be re-established. However, the re-establishment, if it occurs, may take a long time.

There is little if any indication that reducing conditions are being re-established at the KVD mine. It has been more than five years since mining ceased in PAAs 1 and 2. Concentrations of uranium, molybdenum, and sulfate remain well above their baseline levels. Radium-226 concentrations also remain elevated[33].

If they are not cleaned up, the remaining contaminants pose a risk to nearby groundwater resources. After restoration ceases they may be transported beyond the mine boundaries[34].

References

Demuth, H., and J. Schramke, 2006, *Fate and Transport of Post-Restoration Groundwater Constituents at In-Situ Uranium Leach Facilities*, prepared for Uranium Resources Inc., May 10, 2006.

NRC (Nuclear Regulatory Commission), 1983, *Aquifer Restoration at In-Situ Leach Uranium Mines: Evidence for Natural Restoration Processes*, NUREG/CR-3136, PNL-4604, RU, April 1983.

NRC, 2005, *Consideration of Geochemical Issues in Groundwater Restoration at Uranium In-Situ Leach Mining Facilities*, Draft Report for Comment, NUREG/CR-6870, June 2005.

URI, 2006f, *Report to the Kleberg County Citizen Review Board*, May 12, 2006.

[33] Compare values in tables 7.3.5.1-1 and 7.3.5.2-1 with the values in appendix F. Note: the re-establishment of reducing conditions will not decrease radium-226 concentrations (Demuth and Schramke, 2006, page ii).
[34] See section 7.5.

Marisa Weber

From:	PUBCOMMENT-OCC
Sent:	Friday, August 14, 2015 8:38 AM
To:	PUBCOMMENT-WPD; PUBCOMMENT-ELD; PUBCOMMENT-OCC2; PUBCOMMENT-OPIC
Subject:	FW: Public comment on Permit Number UR02827
Attachments:	Kleberg County Hearing Request2.pdf

H
RFR

UR/84705

From: alexc@lf-lawfirm.com [mailto:alexc@lf-lawfirm.com]
Sent: Thursday, August 13, 2015 4:57 PM
To: DoNot Reply
Subject: Public comment on Permit Number UR02827

REGULATED ENTY NAME KINGSVILLE DOME

RN NUMBER: RN102380763

PERMIT NUMBER: UR02827

DOCKET NUMBER:

COUNTY: KLEBERG

PRINCIPAL NAME: URI INC

CN NUMBER: CN600604417

FROM

NAME: David Frederick

E-MAIL: alexc@lf-lawfirm.com

COMPANY: Frederick, Peales, Allmon & Rockwell, P.C.

ADDRESS: 707 RIO GRANDE ST Suite 200
AUSTIN TX 78701-2719

PHONE: 5124696000

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COMMENTS: Please see attached hearing request on behalf of Kleberg County.

MW

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Of Counsel:
Richard Lowerre

Ms. Bridget C. Bohac
Chief Clerk
Mail Code 105
Texas Commission on Environmental Quality
P.O. Box 13087
Capitol Station, Texas 78711-3087

August 13, 2015

Regarding: URI, Inc., Application for Renewal and Amendment of a Class III Injection Well Permit, Permit No. UR02827

Dear Ms. Bohac:

My firm represent Kleberg County, Texas, on matters related to URI, Inc. Kleberg County hereby requests a contested case hearing on the above-referenced application. Kleberg County also requests reconsideration of the Executive Director's preliminary decision to approve the application pursuant to the terms of the draft permit.

Kleberg County should be contacted through its legal counsel, my firm (more particularly, by contacting Mr. Brad Rockwell or me). The County's official address is "Kleberg County Courthouse, 700 East Kleberg Ave., Kingsville, Texas 78363." The County's chief administrative officer is its County Judge, Hon. Rudy Madrid, (361) 595-8585 (voice) and (361) 592-0838 (facsimile).

As the Commission may appreciate, Kleberg County has a publicly-expressed and deeply-held commitment to perseveration and protection of the health and safety of Kleberg County citizens and the control of possible groundwater contamination arising from "excursions" of contaminated groundwater from the mine or failure to responsibly restore aquifer conditions to approximately pre-mining conditions. The County's justiciable interests were summarized by the TCEQ Executive Director in his Response to Hearing Requests in Docket 97-1063-UIC, URI's last permit application to this agency. There, at pages 10-11, the ED said:

> Local governments with authority under state law over issues contemplated by the application may he considered affected persons. 30 TAC § 55.29(b)[now, 30 TAC § 55.203(b)]. Among the relevant factors to he

> considered is whether a governmental entity has statutory authority over or interest in the issues relevant to the application.30 TAC §53.29(c)(6)[now, 30 TAC § 55.203(c)(6)].
>
> The Kleberg County Commissioners Court is a governmental entity with authority to enforce the sanitation and health protection statutes as provided in Chapters 121,341,361, and 364 of the Texas Health and Safety Code, or the water quality laws as provided in Chapter 26 of the Texas Water Code. Op. Tex. Att'y Gen.No.DM-085(1997) at p.3. This authority includes the authority to enforce laws reasonably necessary to protect public health under Health & Safety Code section 121.003(a), and the authority to institute proceedings to enjoin violations of Health and Safety Code section 341.013(c), which prohibits the storage or disposal of waste in a manner that may cause pollution or contamination of ground or surface water. TEXAS HEALTH and SAFETY CODE §341.092(d); Op. Tex. Att'y Gen. No. DM-085 (1997).
>
> The ED believes that the Kleberg County Commissioner's Court is an affected person under section 55.29 because it has authority over issues contemplated by the application which include contamination of groundwater resulting from the expansion of the production of uranium at the Kingsville Dome project. In its bearing request, the Kleberg County Commissioners Court expressed its commitment to the preservation and protection of the health and safety of Kleberg County citizens and its concern about the possible health effects of groundwater contamination at the Kingsvillle Come Project. This type of health issue, raised by a local governmental entity, is sufficient to support a finding that the County Commissioners Court has "a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application" under section 55.29, and thus the Commissioner's Court appears to be an "affected person."

To this, Kleberg County would add that, inasmuch as the County also has the power to inspect TCEQ-permitted activities for compliance with permit terms, § 26.173, Tex. Water Code, the County has a large stake in the precision of permit terms.

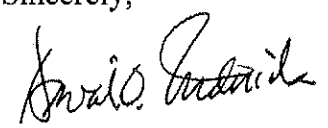
The county also owns groundwater wells that are at risk of contamination by the mining activities. Kleberg County Park and the LE Ramey Golf Course lie just to the NNW of the URI mine and south of Kingsville. The County has water wells at each location that withdraw water from the Goliad Aquifer (the mining aquifer) and that are, because of their locations, downgradient from the URI mine.

The County's criticisms of the ED's preliminary decision and draft permit, as well as other relevant facts, are summarized in the accompanying affidavit and comments of an expert consultant, Mr. George Rice, the County hired to review the draft permit.

These criticisms are mostly grounded in the comment originally offered by Mr. Teo Saenz's comments of May 6, 2013: URI has historically been unable to prevent the mining fluids from migrating beyond the mine area, and this suggests the permit application should be denied.

In light of the foregoing, Kleberg County urges the Commission to grant a contested case hearing in this docket and accord the County "party" status for that hearing. The County also seeks a rehearing of the preliminary decision and draft permit of the Executive Director.

Sincerely,



David Frederick

Xc:

Mr. Dain McCoig, P.E., Vice President
South Texas Operations
URI, Inc.
641 East Farm-to-Market 118
Kingsville, Texas 78363

Executive Director
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Office of Public Counsel
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

STATE OF	§	**Re: TCEQ Draft Area Permit No. UR02827**
TEXAS	§	**Kingsville Dime In-Situ Uranium Mine**
COUNTY OF Bexar	§	
	§	

AFFIDAVIT OF MR. GEORGE RICE, P.G.

Before me, the undersigned notary, on this day personally appeared George Rice, who, being by me duly sworn, testified as follows:

1. My name is George Rice. I am of sound mind and capable of making this affidavit. The facts stated in this affidavit are within my personal knowledge and are true and correct.

2. I have a Master of Science degree in Hydrology from the University of Arizona and have worked as a hydrologist for more than 30 years. I am a licensed Professional Geoscientist in Texas (lic. # 6144).

3. I have studied the effects of the Kingsville Dome Mine on groundwater quality since 2005.

4. The Goliad Aquifer is an important source of water in Kleberg County. It also hosts deposits of uranium ore. Many pumpers, including the City of Kingsville, derive their water from the Goliad Aquifer. The Kingsville Dome Mine, about eight miles southeast of Kingsville, extracts uranium from the Goliad Aquifer.

5. Under natural conditions, groundwater in the Goliad Aquifer near the Kingsville Dome Mine flowed toward the coast. However, heavy pumpage in the vicinity of Kingsville has reversed the hydraulic gradient and groundwater at the mine now flows toward Kingsville (figure 1).

6. Contaminants from mining operations at the Kingsville Dome Mine have migrated beyond the mine boundary, and may continue to do so after mining activities cease. At least one private well has been affected by contaminants from the mine. Mine contaminants could affect wells that serve the City of Kingsville, as well as other wells that derive their water from the Goliad Aquifer.

7. I have prepared comments on TCEQ's Kingsville Dome Mine draft permit. Those comments are attached to this affidavit. Comments 2 and 4 address the issue of contaminants migrating beyond the mine boundary.

FURTHER AFFIANT SAYETH NOT.

George Rice

SWORN TO AND SUBSCRIBED before me on the 13th day of August, 2015.

Notary Public, State of Texas

RICHARD L. SCHOFF
MY COMMISSION EXPIRES
November 12, 2018

Notary's printed name:

RICHARD L. SCHOFF

My commission expires

Nov 12, 2018

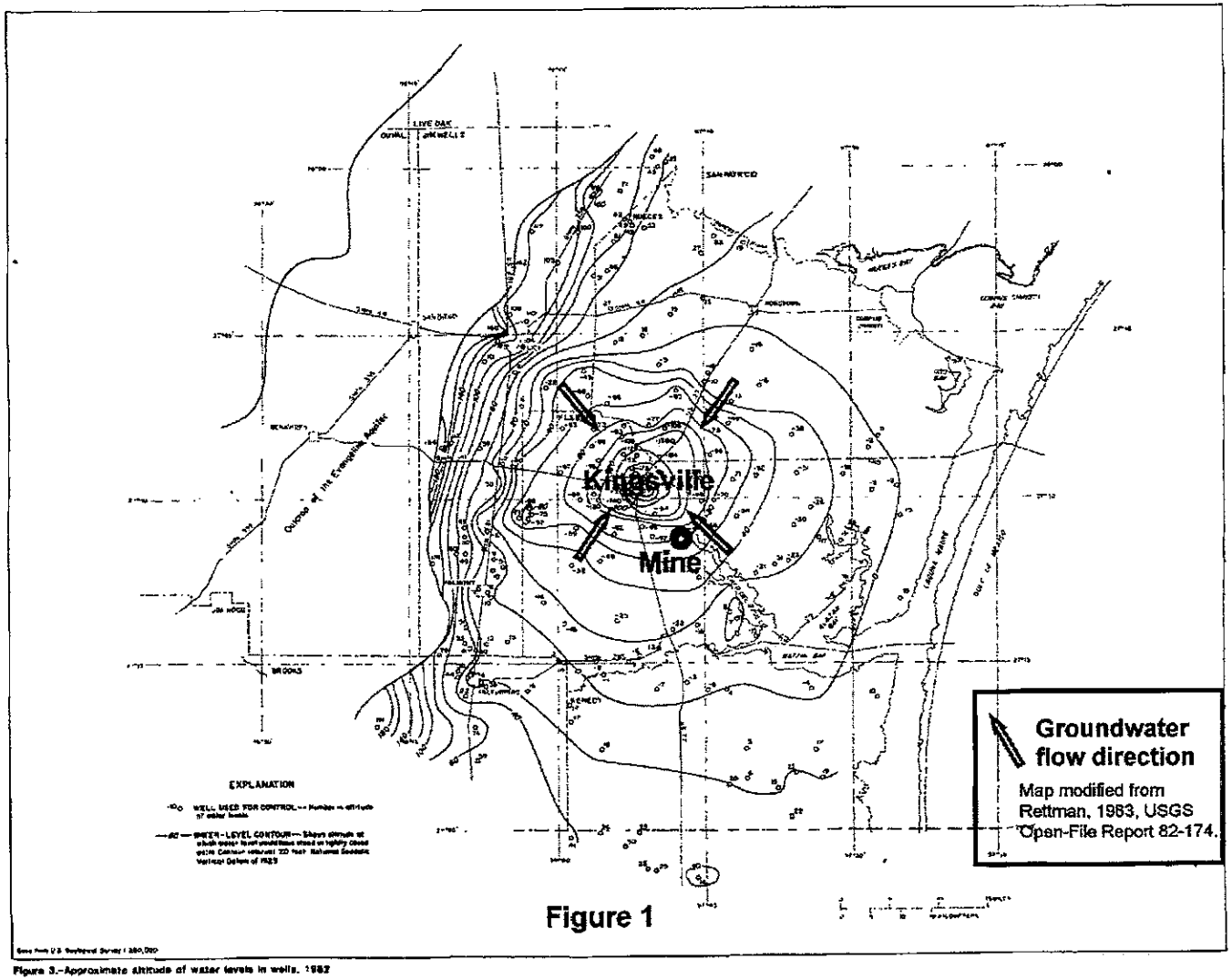


Figure 1

Figure 3.–Approximate altitude of water levels in wells, 1982

Comments on TCEQ's Draft Area Permit No. UR02827 Kingsville Dome In-Situ Uranium Mine

George Rice
August 13, 2015

These comments are based on a review of TCEQ's Draft *Area Permit No. UR02827, Kingsville Dome In-Situ Uranium Mine,* and related documents. It was performed on behalf of Kleberg County.

Comment 1: Section V. A. 3. Permit Range Table values

The permit states that Restoration Table values for any Production Area Authorization (PAA) may not exceed the values in the proposed Permit Range Table (aka Restoration Range Table) (Attachment 4).

The table in Attachment 4 contains proposed maximum values that are significantly higher than the original Restoration Range Table[1]. TCEQ states that the higher maximum values are the result of including pre-mining data from PAA-3 that was not available at the time the original Restoration Range Table was produced[2]. In the case of uranium, this is incorrect.

The proposed value for uranium is 3.75 mg/L, but the highest baseline value for uranium at PAA-3 is 1.54 mg/L. A uranium baseline value of 3.75 mg/L was detected at PAA-2 and this value was known at the time the original Restoration Range Table was produced. But, this value was not used in the original Restoration Range Table. Instead, a value of 1.89 mg/L was used. 1.89 mg/L is the average baseline uranium value for PAA-2. TCEQ does not explain why the original value should be replaced with the higher value.

Comment 2: Section V. E. 1. Monitoring Parameter Upper Limits

The control parameters established in this section are inadequate and will likely result in the failure to recognize the movement of mining solutions into monitor wells (excursions). They are arbitrary, subject to being dominated by unusual parameter values, and biased against declaring excursions[3].

The inadequacy of the control parameters is illustrated by the fact that a number of excursions that occurred in PAA-3 were undeclared. An examination of these excursions is presented in a paper that was published in 2013[4]. This paper is contained in Attachment 1 and its major conclusions are given below.

---

[1] TWC, 1990a, Table 2, page 13.
[2] TCEQ, 2015a, pages 1 and 2; and TCEQ, 2015b, page 2.
[3] Rice, 2006, section 5.
[4] Rice, 2013.

- The injection of leaching fluids at PAA-3 created a hydraulic gradient that caused mining solution to flow from injection wells, toward the monitor well ring.

- The mining solution contained concentrations of uranium that were significantly higher than background concentrations.

- Excursions occurred. That is, mining solution flowed beyond the monitor well ring surrounding PAA-3.

- The excursions reached the Garcia property. They caused uranium concentrations in well W-24 to increase from an average of less than 200 µg/L, to more than 600 µg/L.

TCEQ should revise the control parameters to reduce the likelihood that excursions will go unrecognized.

Comment 3: Section V. F. 1. Sample Collection

The groundwater sampling method described in this section is vague and does not ensure that the sample will be representative of water in the formation. It states that the well shall be pumped until "*conductivity, and pH are relatively constant.*" It does not define the term "relatively constant"[5], it does not specify the number of casing volumes to be removed before samples are collected[6], and it does not require decontamination of sampling equipment.

The permit should specify the methods and techniques required for the collection of water samples, or it should refer to a document that specifies required methods and techniques[7].

Comment 4: Section V. H. 1. Well Plugging and Long Term Monitoring

This section states: *"Within 120 days of completion of final restoration of each PAA, all wells shall be plugged unless revisions of the time requirements are approved by the executive director under 30 TAC §331.86(a)."*

However, post-restoration contaminant concentrations may remain above baseline concentrations, and above EPA drinking water standards[8]. After pre-mining hydraulic gradients are re-established, these contaminants may migrate beyond the mine

---

[5] The Texas Water Development Board recommends the following: pH: ±0.1 pH units, temperature: ±3% specific conductance: ±3% (TWDB, 2003, page 11).

[6] URI states that a minimum of one casing volume will be removed prior to collecting a sample (URI, 2012a, page 49). Most authorities state that when possible, at least three casing volumes should be purged before a sample is collected (see, for example, TWDB, 2003, page 10; and EPA, 2013, page 14.

[7] TWDB, 2003; or EPA, 2013, for example.

[8] For example, the baseline concentration of uranium in PAA-1 is 0.164 mg/L (TWC, 1988a, Attachment A), and the EPA drinking water standard is 0.03 mg/L (EPA, 2004). But under the proposed Permit Range Table (Attachment 4), uranium concentrations up to 3.75 mg/L may be allowed to remain.

boundary. Therefore, groundwater monitoring should continue until reducing conditions are permanently re-established and contaminant concentrations return to their pre-mining levels, or until contaminant concentrations are lower than EPA drinking water standards.

A detailed discussion of this issue contained in Attachment 2.

Comments on URI's Kingsville Dome In Situ Recovery Project Application and Technical Report, December 12, 2012.

According to permit section VIII. B., URI's Application and Technical Report is " ... *incorporated into this permit by reference as if fully set out herein."*

Comment 4: page 21, Effects on Aquifer Users

URI states: "*The result is water quality is not impacted in USDWs beyond the exempted area into the ¼ mile AOR for the Kingsville Dome project. In other words, there is no impact to the regional aquifer that would affect other relevant aquifer uses."*

This statement is incorrect. Mining solutions from the Kingsville Dome Mine have flowed beyond the mine boundary and have entered the Garcia property. They caused uranium concentrations in Garcia well W-24 to increase from an average of less than 200 µg/L, to more than 600 µg/L.[9]

Comment 5: page 22, Values in Table 1

The baseline uranium values given for the PAA-2 production zone are 3189 ppb (average) and 102,000 ppb (high). These values are much higher that the values given in the PAA-2 permit[10]. URI/TCEQ should either give the source of these values or correct them.

References

EPA (U.S. Environmental Protection Agency), 2004, *2004 Edition of the Drinking Water Standards and Health Advisories*, EPA 822-R-04-005, Winter 2004.

EPA 2013, *Groundwater Sampling*, SESDPROC-301-R3, March 6, 2013.

Rice, 2006, *Effects of URI's Kingsville Dome Mine on Groundwater Quality, Final Report*, prepared for the Kleberg County URI Citizen Review Board, July 2006.

Rice, 2013, *Excursions of Mining Solution at the Kingsville Dome In-situ Leach Uranium Mine*, in Austin Geological Society Bulletin, Volume 9, 2013.

---

[9] Rice, 2013, (Attachment 1 of this report).

[10] The values given in the permit for the production zone monitor wells are 19 ppb (average) and 272 ppb (high). The values for the production zone production area wells are 1890 ppb (average) and 3750 ppb (high). TWC, 1990b, Attachment G.

TCEQ (Texas Commission on Environmental Quality), 2006a, *Authorization to Conduct Underground Injection Under Provisions of Permit No. URO2827-001, Production Area Authorization 3, Mine: Kingsville Dome, Production Area: URO2827-031,* May 4, 2006.

TCEQ, 2007a, *Notice Of Draft Minor Amendment Of A Class III In Situ Uranium Mining Production Area Authorization UR02827PAA1*, June 29, 2007.

TCEQ, 2015a, *Technical Summary and Executive Director's Preliminary Decision*, regarding URI, Inc. In- situ Uranium Mining Project, Underground Injection Control Permit No. UR02827, February 2015.

TCEQ, 2015b, *Decision of the Executive Director Re: URI, Inc. Permit No. UR02827,* and, *Executive Director's Response to Public Comment*, July 14, 2015

TWC (Texas Water Commission), 1988a, *Permit to Conduct Underground Injection Under Provisions of Permit No. URO 2827, Production Area Authorization, Mine: Kingsville Dome Mining Project, Production Area: URO2827-011*, April 12, 1988.

TWC, 1990a, *Permit NO. URO2827, Kingsville Dome Mining Project, Permit to Conduct Underground Injection Under Provisions of Chapters 26 & 27, Texas Water Code,* January 11, 1990. This permit supersedes the permit issued on December 30, 1986.

TWC, 1990b, Authorization to Conduct Underground Injection Under Provisions of Permit No. URO2827-001, Production Area Authorization, Mine: Kingsville Dome, Production Area: URO2827-021, June 28th, 1990.

TWC, 1998, Authorization to Conduct Underground Injection Under Provisions of Permit No. URO2827-001, Production Area Authorization 3, Mine: Kingsville Dome, Production Area: URO2827-031, February 6, 1998. Note: This PAA was voided by the courts. A revised PAA3 is pending (URI, 2005k).

TWDB (Texas Water Development Board), 2003, *A Field Manual for Groundwater Sampling*, Radu Boghici, P.G, Geologist, User Manal 51, March 2003.

URI, 1989a, *Application for Production Area Authorization 2*, July7,1989.

URI, 1997a, *Application for Production Area Authorization URO2827-031*, (PAA-3) June 25, 1997, revised April 9, 2002.

URI, 2012a, *Kingsville Dome In Situ Recovery Project. Application and Technical Report*, December 12, 2012.

Attachment 1

Excursions of Mining Solution at the Kingsville Dome In-situ Leach Uranium Mine

George Rice

Published in Austin Geological Society Bulletin, 2013

Abstract

In-situ leach (ISL) uranium mining differs from conventional mining in that it does not require excavation of ore. Instead, uranium is mobilized by injecting leaching fluids into a groundwater-saturated ore body. The uranium enriched groundwater (mining solution) is then brought to the surface through extraction wells. Approximately 1 to 3 percent more water is extracted from a uranium production well field than is injected. The purpose of this "bleed" is to prevent the escape of mining solution (excursions) by maintaining a hydraulic gradient toward the extraction wells.

The Kingsville Dome Mine is 13 km southeast of Kingsville, Texas. ISL mining began in 1988 and continued intermittently until 2009. The mine covers 864 ha and is divided into three production areas. This paper focuses on production area three (PA-3).

The bleed at PA-3 did not contain the increased pressures caused by injection of leaching fluids. A hydraulic gradient was rapidly established between the injection wells and the mine boundary, as shown by a rise in water levels in monitor wells surrounding PA-3. This gradient drove mining solution beyond the mine boundary. These excursions affected a well on the Garcia property, approximately 300 m down gradient of the mine. Since mining began, uranium concentrations in the Garcia well have increased from less than 200 µg/L, to more than 600 µg/L. This is the first time that contaminants in an off-site domestic well have been linked to ISL uranium mining in the United States of America.

In-situ leach uranium mining

In-situ leach (ISL) uranium mining differs from conventional mining in that it does not require excavation of ore. Instead, uranium is mobilized by injecting leaching fluids into a groundwater-saturated ore body (figure 1). The uranium-enriched groundwater (mining solution) is brought to the surface through extraction wells and routed to a processing plant where the uranium is removed. The uranium-depleted solution is then re-injected into the ore body. This cycle of injection and extraction continues as long as the ore body contains economically recoverable amounts of uranium.

Leaching fluids typically consist of water, oxidants (e.g., oxygen, hydrogen peroxide), and complexing agents (e.g., carbonates, sulfates) (NRC 2007). The oxidants convert uranium from the relatively insoluble U^{+4} state to the soluble U^{+6} state. The complexing agents combine with the oxidized uranium to form anionic or neutral complexes that

remain in solution (e.g., $UO_2(CO_3)_3^{4-}$, $UO_2(SO_4)_3^{4-}$) (Charbeneau 1984). Uranium ore usually contains other toxic constituents such as radium, arsenic, molybdenum, and selenium (NRC 2007). These are also mobilized during ISL mining.

Most ISL mining occurs in fluvial sandstone aquifers (Staub et al. 1986). These fluvial systems are heterogeneous and anisotropic, consisting of interbedded clays, silts, sands, and gravels. They contain paleochannels that act as preferential flow paths, and overbank deposits that impede flow.

Injection and extraction wells are organized in patterns. Figure 2 shows a 5-spot pattern. Other patterns, e.g., 7-spot, are also used. A uranium production well field will usually contain a series of patterns arranged to follow the form of the uranium ore body. Well fields are grouped in production areas, and production areas are surrounded by a ring of monitor wells (NRC 2009).

Approximately 1 to 3 percent more water is extracted from a production area well field than is injected. The purpose of this "bleed" is to prevent the escape (excursion) of mining solution by maintaining a hydraulic gradient toward the extraction wells. An excursion is the flow of mining solution beyond the monitor well ring.

Figure 2 is an idealized depiction of groundwater flow. In practice, excursions are initiated when mining solution flows beyond the capture zones of extraction wells. This may be caused by failure to balance injection and extraction rates, failure to maintain sufficient bleed rates, or when mining solution is diverted by paleochannels.

After mining at a production area is completed, groundwater is supposed to be restored to its pre-mining quality (Texas Administrative Code, Title 30, §331.107). However, groundwater restoration after ISL mining is difficult. The United States Geological Survey reviewed 22 uranium production areas in Texas (USGS 2009). Toxic constituents (e.g., uranium, arsenic, selenium) had been restored to their pre-mining levels at only two of them. In no case had all constituents, including non-toxic constituents such as calcium and sulfate, been restored to their pre-mining levels (USGS 2009). Nonetheless, the Texas Commission on Environmental Quality (TCEQ) considers groundwater restoration to be complete at all 22 production areas (USGS 2009).

ISL mining at Kingsville Dome

The Kingsville Dome (KVD) mine is owned and operated by Uranium Resources Inc. (URI). The mine is in Kleberg County, Texas, approximately 13 km southeast of Kingsville (figure 3). ISL mining began in 1988 and continued intermittently until 2009. The area licensed for mining covers 864 ha (TBRC 1985) and is divided into three production areas (PAs) (figure 4). This paper focuses on PA-3. Unless otherwise noted, all of the site-specific data regarding the KVD mine was obtained from documents submitted by URI to the TCEQ or its predecessor agencies.

There are domestic wells near the mine. All of them are monitored for uranium and other constituents associated with ISL mining. Two of them, the Garcia wells, are directly down gradient of PA-3 (figure 4).

The ore occurs in the Goliad Aquifer, a fluvial deposit consisting of interbedded clay, silt, and sand (Rice 2006). The ore is found between about 150 m and 225 m below land surface. The principal uranium minerals are believed to be uraninite (UO_2) and coffinite ($U(SiO_4)(OH)_4$) (McKnight 2006).

The groundwater is confined (Rice 2006) and generally flows toward the northwest (TBRC 1985). The current flow direction is not the natural direction. Under natural conditions, groundwater flowed southeast, toward the coast. However, pumpage in the vicinity of Kingsville reversed the hydraulic gradient and groundwater now flows toward Kingsville (Rettman 1983). Local groundwater flow directions vary. Calculated flow rates range from about 0.3 m/yr to 100 m/yr (Rice 2006). This range reflects the heterogeneity of the fluvial deposits. It should be noted that these flow rates are for non-mining conditions. During mining, local flow rates may be much higher due to the steep gradients caused by the operation of injection and extraction wells.

The leaching fluid used at the KVD mine is oxygenated water. Table 1 shows typical concentrations of constituents in the mining solution. URI uses a computerized model to adjust injection and extraction rates, but the model does not account for aquifer heterogeneities (Grant 2006). URI maintains a bleed of approximately one percent. The bleed is supposed to continue until groundwater restoration is completed, but URI has not always maintained the bleed as required (TCEQ 2003).

Table 1
Concentrations of Constituents in a Typical Mining Solution at the KVD Mine*

pH (SU)	Electrical conductivity (µmhos/cm)	Uranium (µg/L)	Chloride (mg/L)	Calcium (mg/L)	Bicarb-onate (mg/L)	Sulfate (mg/L)	Molyb-denum (mg/L)
6.6	4000	80,000	600	400	800	1200	10

*URI analysis of mining solution from extraction wells. It may be a mixture of mining solutions from many extraction wells. Data from Mark Pelizza of URI, 2005.

The Effects of Mining on Hydraulic Gradients at PA-3

Excursions are driven by hydraulic gradients. During mining at PA-3, the hydraulic gradients driving excursions were the result of the injection of leaching fluids.

PA-3 covers 151 ha. Mining at PA-3 first began in June 1998 and was suspended in June 1999. During this first period, uranium was produced from well fields 9 and 10 (figure 5). Mining resumed in January 2007 and was suspended again in June 2009. During this second period, uranium was produced from well fields 13, 14, 15a, 16a, 16b,

17a and 17b. Well field 15b was installed but was not used to produce uranium (Van Horn 2012). Well field injection rates ranged from about 1400 L/min to 5000 L/min (TCEQ 2008; URI 1999). Complete well field injection data are not available. A request to URI for additional data was refused (URI 2012b).

PA-3 is surrounded by a ring of 49 monitor wells. Water levels have been measured in all the monitor wells, but the lengthiest records are from seven wells monitored under an agreement between URI and Kleberg County. Beginning in 2005, water levels were measured in wells MW-78, MW-83, MW-85, MW-89, MW-97, MW-102, and MW-125. Water levels in these wells were measured quarterly when mining was not taking place, and twice a month during mining. Water levels from these seven wells are used in the discussion below.

The injection of leaching fluids had a rapid effect on water levels in the monitor wells. The effect can be seen by comparing water levels before, during, and after mining. Water levels rose an average of 1.7 m in the year after the resumption of mining (table 2), and fell an average of 2.3 m in the year after the suspension of mining (table 3). Figure 6 shows water levels in two monitor wells for the one year periods immediately before and after mining resumed.

Table 2
Water Level Rises in Response to Resumption of Mining*

Well ID	Average depth to water in the year before mining resumed (Dec 2005 – Dec 2006, m btoc**)	Average depth to water in the year after mining resumed (Jan 2007 – Dec 2007, m btoc)	Average rise in water level in year after mining resumed (m)
MW-78	36.21	34.53	1.68
MW-83	39.40	37.29	2.11
MW-85	40.45	37.77***	2.68
MW-89	37.69	36.67	1.02
MW-97	36.80	35.61	1.19
MW-102	37.28	35.84	1.44
MW-125	34.06	32.37	1.69
		Average of all wells:	1.67

* URI, 2012a. The average bleed rate during the year preceding mining was 62 L/min (URI 2007a, no pumping for restoration appears to have occurred during this period). The average bleed rate during the first three quarters of mining was 67.8 L/min (URI 2007b and 2008). There was no bleed during the remaining period of mining.
** btoc: below top of casing.
*** With outlier removed. The outlier (56.48 m Aug 13, 2007) was approximately 18 m lower than any other measurement (URI 2012a). The average depth without removing the outlier was 38.58 m.

Table 3
Water Level Declines in Response to Suspension of Mining*

Well ID	Average depth to water in the year before mining suspended (June 2008 – May 2009 m btoc)	Average depth to water in the year after mining suspended (June 2009 – May 2010 m btoc)	Average decline in water level in year after mining suspended (m)
MW-78	35.27	37.71	2.44
MW-83	37.47	40.27	2.80
MW-85	39.45	42.00	2.55
MW-89	37.08	39.46	2.38
MW-97	36.44	38.60	2.16
MW-102	36.90	38.79	1.89
MW-125	33.27	35.38	2.11
		Average of all wells:	2.33

* URI 2012a. The average pumping rate (bleed plus restoration) during the year following mining was 428 L/min (URI 2010).

This rapid effect on water levels is to be expected. In a confined aquifer, changes in head are quickly propagated in response to the extraction or injection of water (Kruseman and De Ridder 1976). A similar response was seen during a pumped aquifer test at the KVD mine. In that test, water levels more than 1200 m from the pumped well began dropping less than ten hours after pumping began (TBRC 1985).

The rise in water levels shows that the bleed did not contain the increased pressures caused by injecting leaching fluids. The increased pressures were propagated beyond the monitor well ring, creating a gradient between the injection wells and monitor wells. Mining solution flowed down this gradient, toward the monitor wells. This resulted in excursions.

Excursions at PA-3

Excursions are monitored by measuring the concentrations of uranium and chloride, and the value of electrical conductivity (EC) at the monitor well ring. Monitor wells are sampled quarterly when mining is not taking place, and twice a month during mining.

Excursions at PA-3 are most readily identified by increases in uranium concentrations. This is because the concentration of uranium in the mining solution is more than 1000 times greater than the groundwater background concentration, while the concentration of chloride and the value of EC are only about two times greater than background (table 4).

Table 4
Uranium, Chloride, and EC Values In Mining Solution and Background Groundwater at PA-3

Parameter	Typical mining solution value	Range of background values*	Average background values*	Ratio of mining solution value to average background value	EPA drinking water standard**
Uranium (µg/L)	80,000	< 0.001 - 187	41	1950	30 µg/L
Chloride (mg/L)	600	214 - 443	282	2.1	250 mg/L
EC (µmhos/cm)	4000	1600 - 2590	2017	2.0	NA

* Pre-mining values in monitor well ring surrounding PA-3 (URI 1997).
** The uranium standard is a primary maximum contaminant level (MCL). MCLs are health-based and legally enforceable. The chloride standard is a non-enforceable secondary standard based on aesthetic effects (e.g., taste, odor) (EPA, 2009). NA: not applicable.

Given the values in table 4, a mixture of 2% mining solution and 98% background groundwater would have the following values of uranium, chloride, and EC.

Uranium: 0.02 (80,000 µg/L) + 0.98 (41 µg/L) = 1640 µg/L
Chloride: 0.02 (600 mg/L) + 0.98 (282 mg/L) = 288 mg/L
EC: 0.02 (4000 µmhos/cm) + 0.98 (2017 µmhos/cm) = 2057 µmhos/cm

Thus, a mixture of several percent mining solution with background groundwater could be readily identified by the increase in uranium concentrations, but the chloride and EC values would be difficult to distinguish from background values.

At least two factors act to reduce concentrations in the sampled mining solution. As the mining solution travels from the well field to the monitor well ring, hydrodynamic dispersion dilutes the concentrations of uranium and other constituents. There is also an apparent reduction in concentrations resulting from the design of the monitor wells. The well screens are 30 m long. Therefore, a plume of mining solution that is less than 30 m thick will be diluted by native groundwater when it is pumped from the well.

It should be noted that it is not necessary for uranium to travel from the well fields to the monitor well ring in order to increase uranium concentrations in the monitor wells. If uranium is present in the formation near the monitor wells, uranium concentrations can be increased by the arrival of oxidizing mining solution.

Apparent excursions of mining solution have been detected 21 times at PA-3 (table 5, and figures 5 and 7). More excursions have probably occurred, but URI does not report the values of uranium concentrations that are less than 1000 µg/L (see below).

Table 5
Monitor Wells with Elevated Uranium Concentrations

Well ID	Background U concentration (µg/L)	U concentration during excursion (µg/L)	Date U detected
MW-74	21	3200	11/16/06
MW-89	22	1690	8/17/07
MW-90	24	1320	8/17/07
MW-90	24	1060	11/27/07
MW-91	31	2140	8/17/07
MW-91	31	1500	3/5/08
MW-92	36	1670	8/17/07
MW-92	36	1440	10/11/07
MW-92	36	1300	4/16/08
MW-93	37	2500	10/11/07
MW-98	59	1100	4/18/11
MW-100	30	3600	8/17/07
MW-101	53	2520	8/17/07
MW-102	20	1300	11/7/06
MW-102	20	5170	8/17/07
MW-103	16	2790	8/17/07
MW-104	36	2140	8/17/07
MW-105	31	2320	8/17/07
MW-106	32	3900	11/7/06
MW-106	32	1260	8/17/07
MW-118	101	1170	10/19/07

The uranium concentrations shown in table 5 would not be considered excursions by TCEQ. According to TCEQ, an excursion has not occurred unless uranium concentrations exceed 6540 µg/L (TCEQ 2006).

Quality of analytical data and false positives

The uranium concentrations cited in this paper come from analyses performed by commercial laboratories and by URI's in-house laboratory. The background samples and samples from the Garcia wells were analyzed by commercial laboratories. All the monitor well samples, except the background samples, were analyzed by URI's laboratory.

There are two problems with the analyses produced by URI's laboratory. First, although TCEQ accepts the results, problems with their accuracy have been documented (Rice

2006). Second, when reporting uranium concentrations for monitor wells, URI reports only those values greater than 1000 µg/L. If a value does not meet this threshold, it is reported either as less than 1000 µg/L, or as zero. Zero is not an analytical result. It means that the concentration is below the detection limit. In this case, the detection limit appears to be about 20 µg/L (URI 2005). Thus, the uranium analyses reported by URI's laboratory fall into three groups: less than 20 µg/L, between 20 µg/L and 1000 µg/L, and greater than 1000 µg/L. The author has asked URI for the laboratory data showing uranium values below the 1000 µg/L threshold. URI refused (URI 2012b).

The problems with URI's uranium analyses raise the possibility that URI might have reported false negatives or false positives. In the absence of additional data, individual false negatives cannot be identified. But false positives may be identified by examining the circumstances associated with analytical results.

Figure 7 is a timeline showing the 21 uranium detections greater than 1000 µg/L. Four of the detections may be false positives because they are inconsistent with the history of mining at PA-3. Three of the four are from samples collected in November 2006, approximately two months before mining resumed. The fourth is from a sample collected in April 2011, almost two years after mining was suspended. There are other possible explanations for these four detections. The 2006 detections could be the result of pre-mining activities (e.g., testing of injection wells), or they could represent slow-moving, remnant solution from mining that occurred in 1998 and 1999. The 2011 detection could also be the result of slow-moving solution from earlier mining. At best, these four detections are suspect.

There are several reasons to believe that the other 17 uranium detections shown in figure 7 are not false positives. First, all of them occurred during mining. Second, all of them occurred after water levels in the monitor wells rose sharply in response to mining. This rise indicates that mining solution was being driven toward the monitor wells. Third, with one exception, the 17 detections are grouped in two clusters of wells: MW-89 – MW-93 and MW-100 – MW-106 (table 5 and figure 5). If the detections were false positives, one would expect them to be distributed randomly around the monitor well ring. In four of the wells, values greater than 1000 µg/L were detected more than once (table 5).

A suspicious feature of the detections shown in figure 7 is that 11 of them are from samples that were collected on one day, August 17, 2007. These detections could have been the result of problems in URI's laboratory. However, there are reasons to believe that this is not the case. First, a total of 27 samples were collected on August 17, 2007. Sixteen of the analytical results from that day were below 1000 µg/L. Second, all 11 detections occurred in the two well clusters mentioned above. Third, the 11 detections are not temporally isolated. That is, they are not anomalies that were preceded and followed by non-detections. The 11 wells where the detections occurred were sampled in the two-month periods immediately before and immediately after August 17, 2007. Seventeen samples were collected in the two-month period before August 17th. All of the results were between 20 µg/L and 1000 µg/L. Thirty samples were collected in the

two-month period after August 17th. Twenty eight of the results were between 20 µg/L and 1000 µg/L, one result was less than 20 µg/L, and one result was more than 1000 µg/L.

Although there are problems with the uranium analyses performed by URI's laboratory, careful consideration of the data leads to the conclusion that most of the uranium detections are not false positives.

Garcia wells

The Garcia family used to drink water from two wells on their property, W-24 and W-25 (figure 5). These wells are about 60 m apart, and less than 300 m northwest of PA-3. Both of them are completed in the Goliad Aquifer (figure 8). Their depths are approximately 180 m and 240 m (Saenz 2012a). Well W-24 is now used only to water cattle and goats, and W-25 is no longer used (Saenz 2012a).

Water from wells W-24 and W-25 has been sampled since 1996, if not earlier; the records are unclear (figure 9). Before mining began at PA-3, the average concentration of uranium was 180 µg/L. The uranium was probably due to the presence of uranium ore in the Goliad Aquifer where the Garcia wells are completed.

Until late 2005, water from both Garcia wells was pumped to a single tank, and analyses were performed on samples from the tank. The only exception to this was in June 1998, when separate samples were collected from wells W-24 and W-25. The uranium concentrations were 152 µg/L and 167 µg/L, respectively. Since late 2005, W-24 has been sampled nine times and W-25 one time. The samples from W-24 had an average concentration of 670 µg/L, and the sample from W-25 had a concentration of 10.4 µg/L.

The cause of the low concentration in W-25 is unknown. W-25 no longer contains a pump. At the time it was sampled, W-25 had been unused for about two years and the sample may have been affected by deterioration of the well casing (e.g., occlusion of uranium by precipitating iron). The sample was collected by the author after purging three bore volumes. At the beginning of the purge, the water appeared to be black. When the sample was collected, the water was lightly tinted.

There are two possible causes of the increased uranium concentrations in W-24. First, concentrations in W-24 may have always been high, but were diluted in the tank by low concentrations from W-25. Second, they represent excursions from PA-3.

There are two problems with the first possibility. First, when W-24 and W-25 were individually sampled in 1998, the uranium concentrations were about equal. Second, the volume of water pumped into the tank by each well appears to have been about the same. Three horse-power pumps were installed in both wells, and when the storage tank was filled, both wells turned on and off at the same time. (Saenz 2012b). When the author sampled the wells in December, 2008, both wells produced water at a rate of

about 35 L/min. An equal mixture of waters containing 10 µg/L and 670 µg/L uranium would contain 340 µg/L uranium. This is almost twice the average value measured in the tank between 1996 and 2005.

There is also a problem with the second possibility. The increased uranium concentrations in W-24 were first detected in late 2005, but excursions at PA-3 were not reported until 2007. However, unreported excursions, that is excursions where the uranium concentration did not reach the 1000 µg/L threshold, probably did occur. This possibility is supported by the following. First, the increased concentrations occurred after mining began at PA-3. Second, the general direction of groundwater flow from PA-3 is toward the Garcia wells, and flow may have been accelerated by pumping of the Garcia wells. Third, excursions have been detected in monitor wells less than 600 m from the Garcia wells (figure 5).

The available data indicate that the likely source of the increased uranium concentrations in the Garcia well is PA-3. To the author's knowledge, this is the first time that contaminants in an off-site domestic well have been linked to ISL uranium mining in the United States of America.

Conclusions

Although there are uncertainties associated with some of the available information, a conservative assessment leads to the following conclusions.

- The injection of leaching fluids at PA-3 created a hydraulic gradient that caused mining solution to flow from injection wells, toward the monitor well ring.
- The mining solution contained concentrations of uranium that were significantly higher than background concentrations.
- Excursions occurred. That is, mining solution flowed beyond the monitor well ring surrounding PA-3.
- The excursions reached the Garcia property. They caused uranium concentrations in well W-24 to increase from an average of less than 200 µg/L, to more than 600 µg/L.

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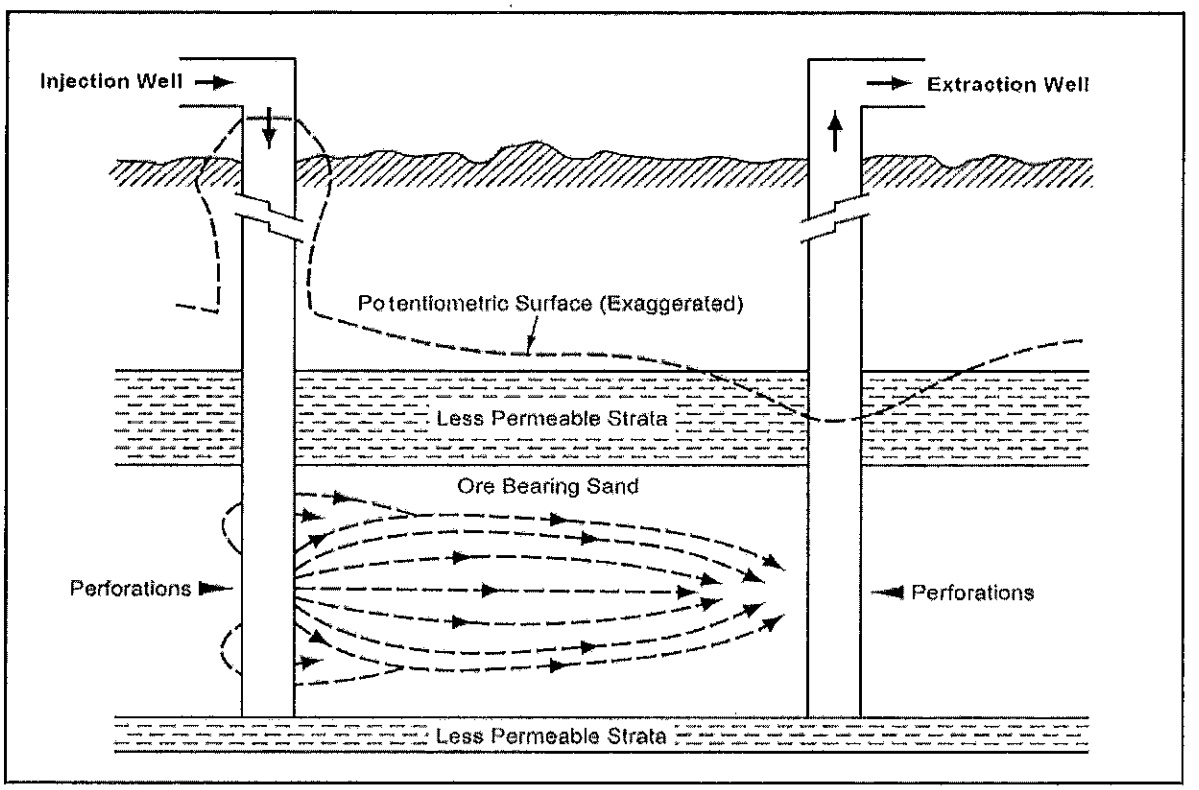

Figure 1
Schematic Cross Section, Injection and Extraction Wells (adapted from NRC 2009)

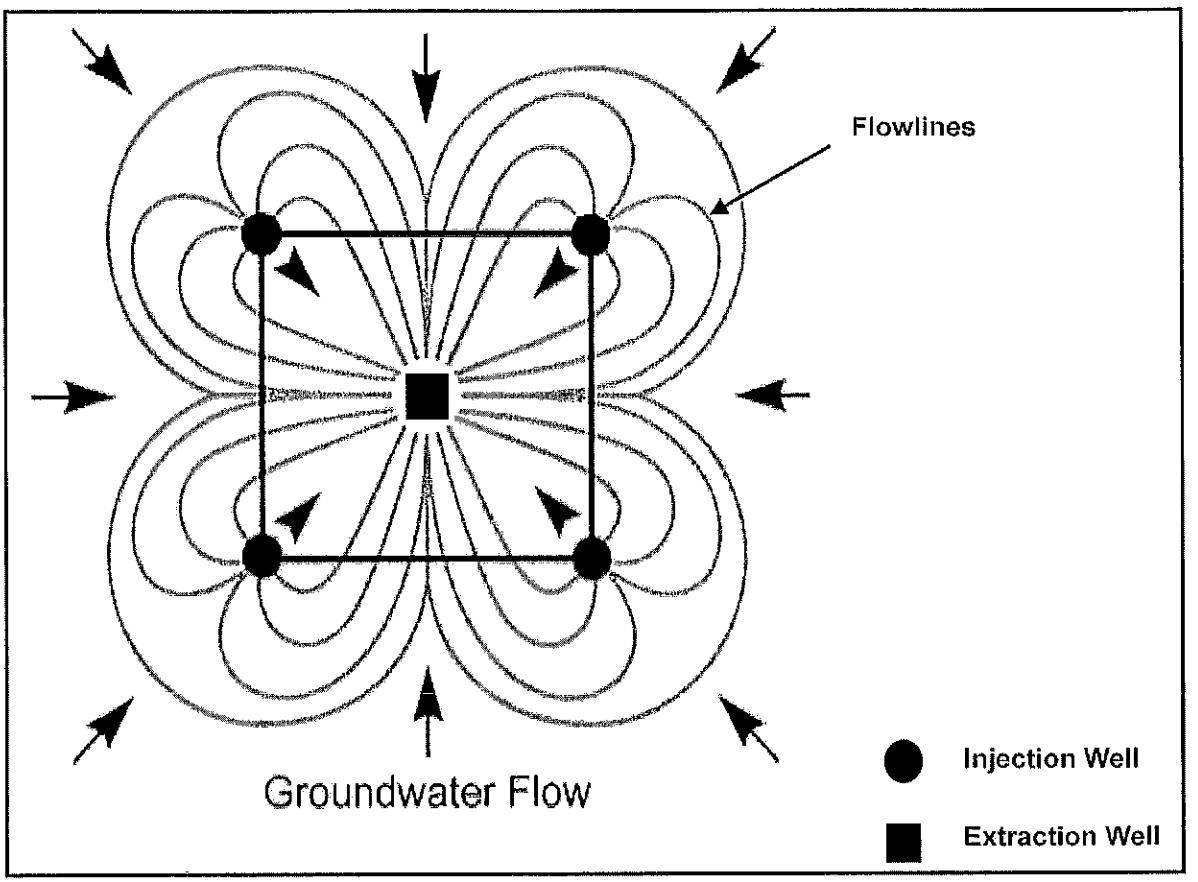

Figure 2
Schematic, 5-spot Injection-Extraction Well Pattern (Adapted from NRC 2009)

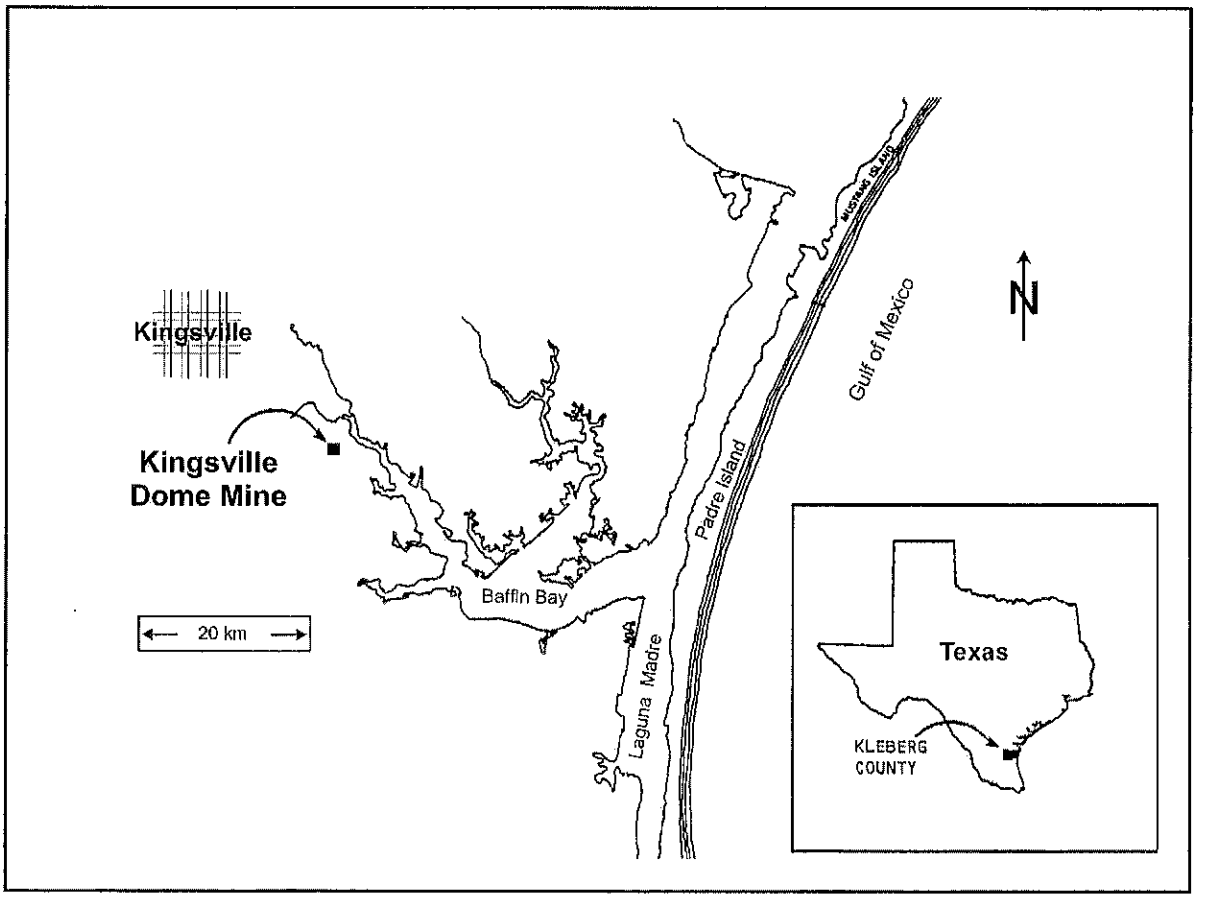

Figure 3
Mine Location Map

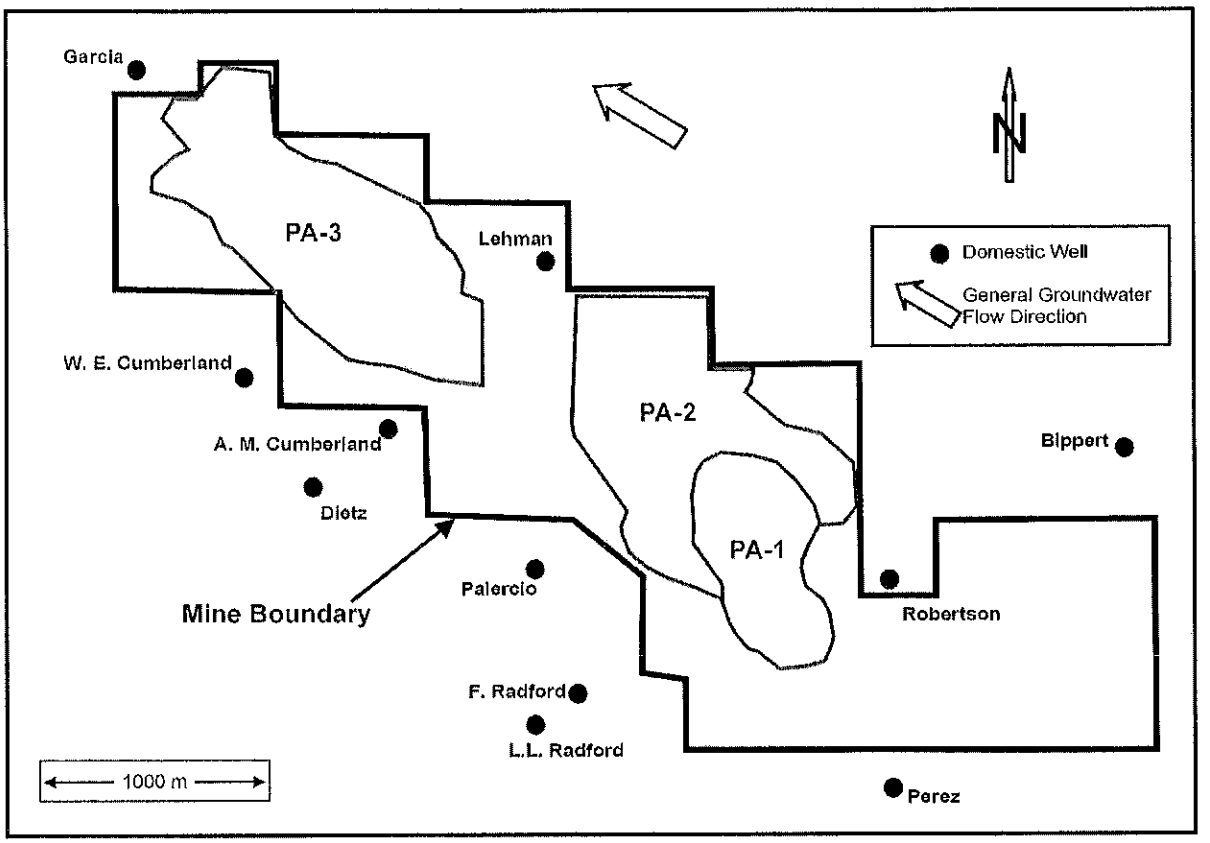

Figure 4
KVD Mine Map

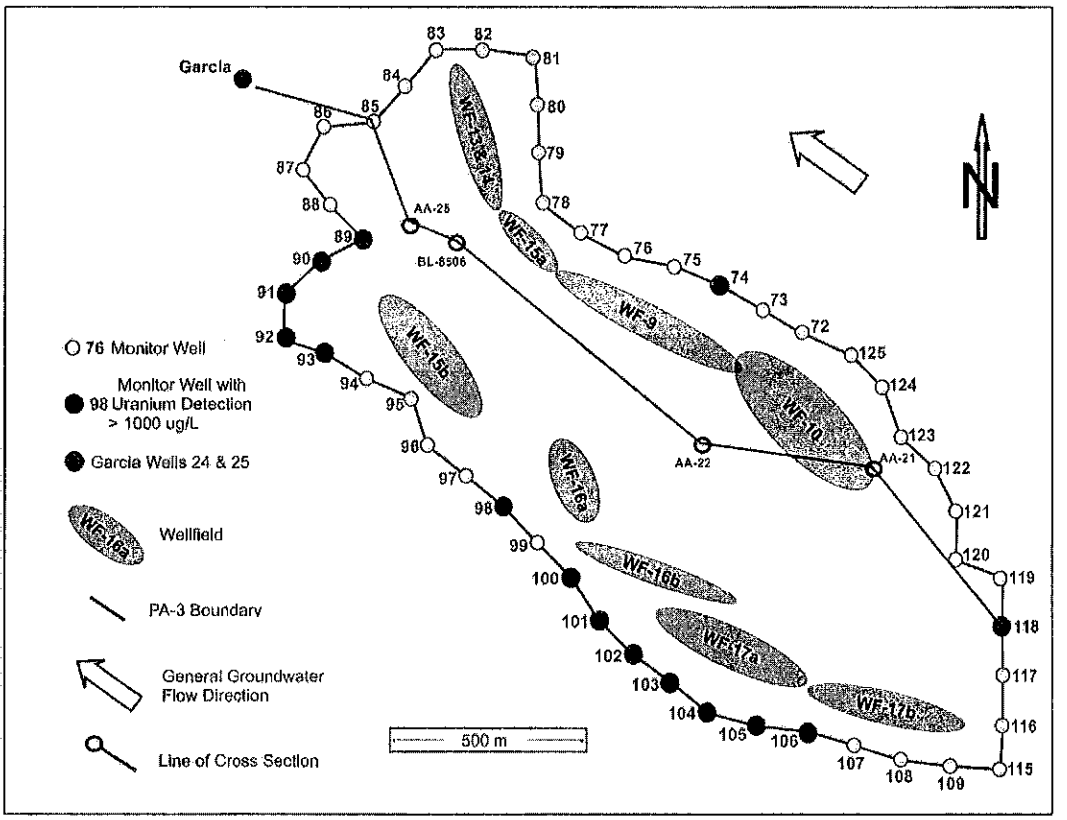

Figure 5
PA-3, Well Fields and Monitor Wells

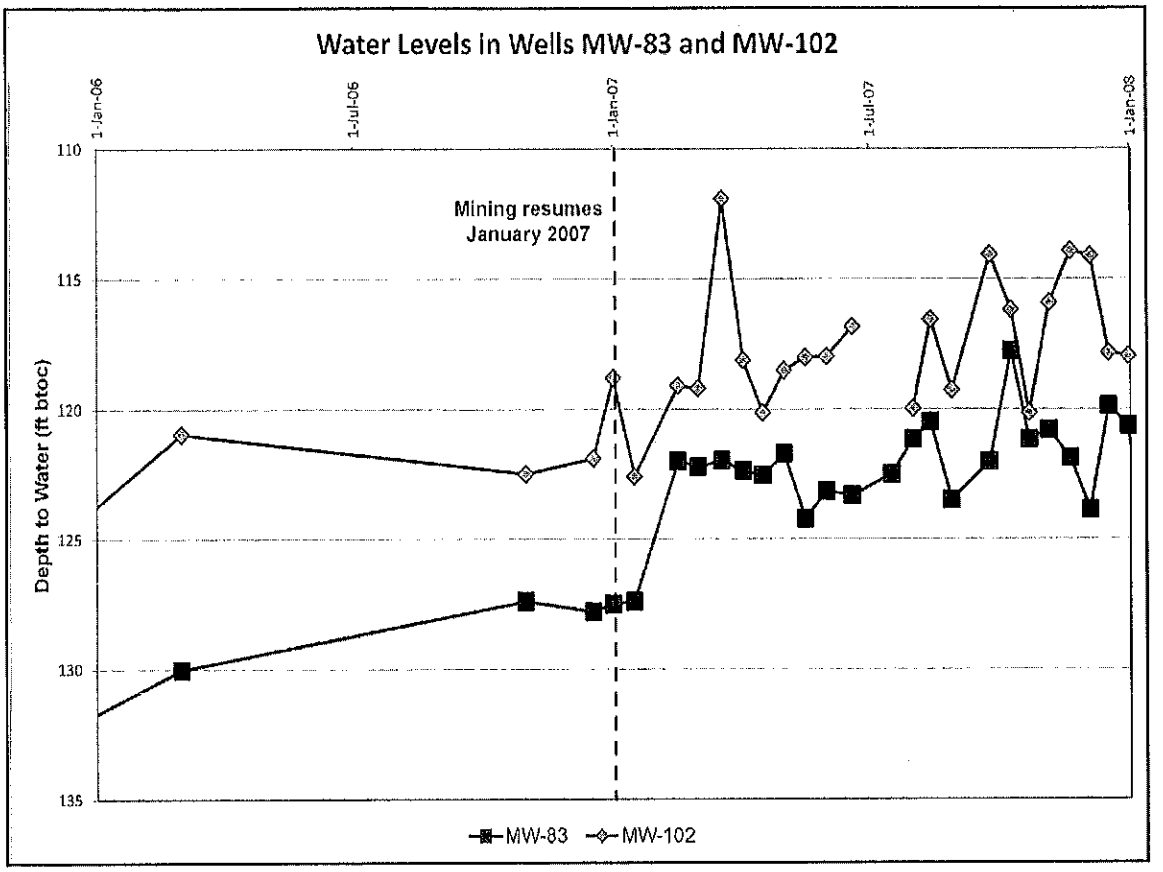

Figure 6
Response of Water Levels to Injection of Leaching Fluids

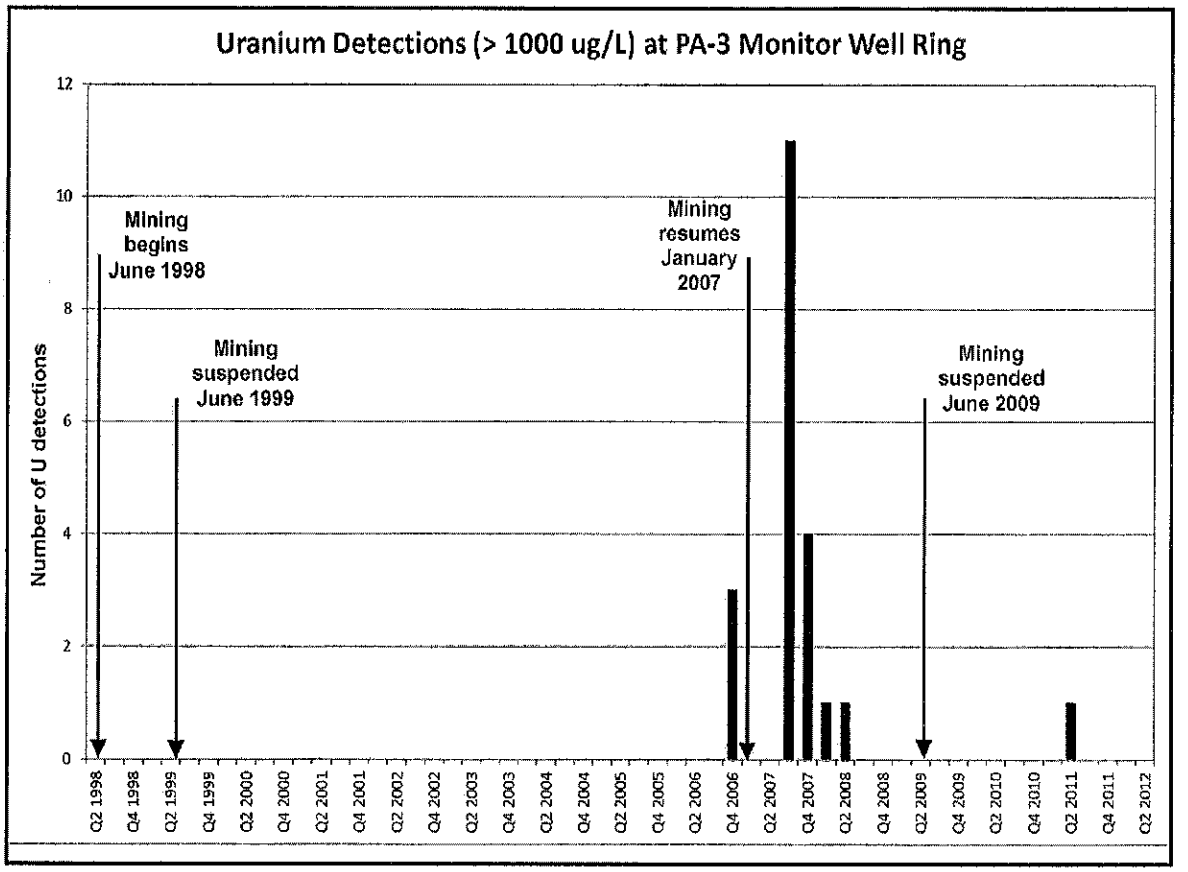

Figure 7
Timeline of Uranium Detections at PA-3

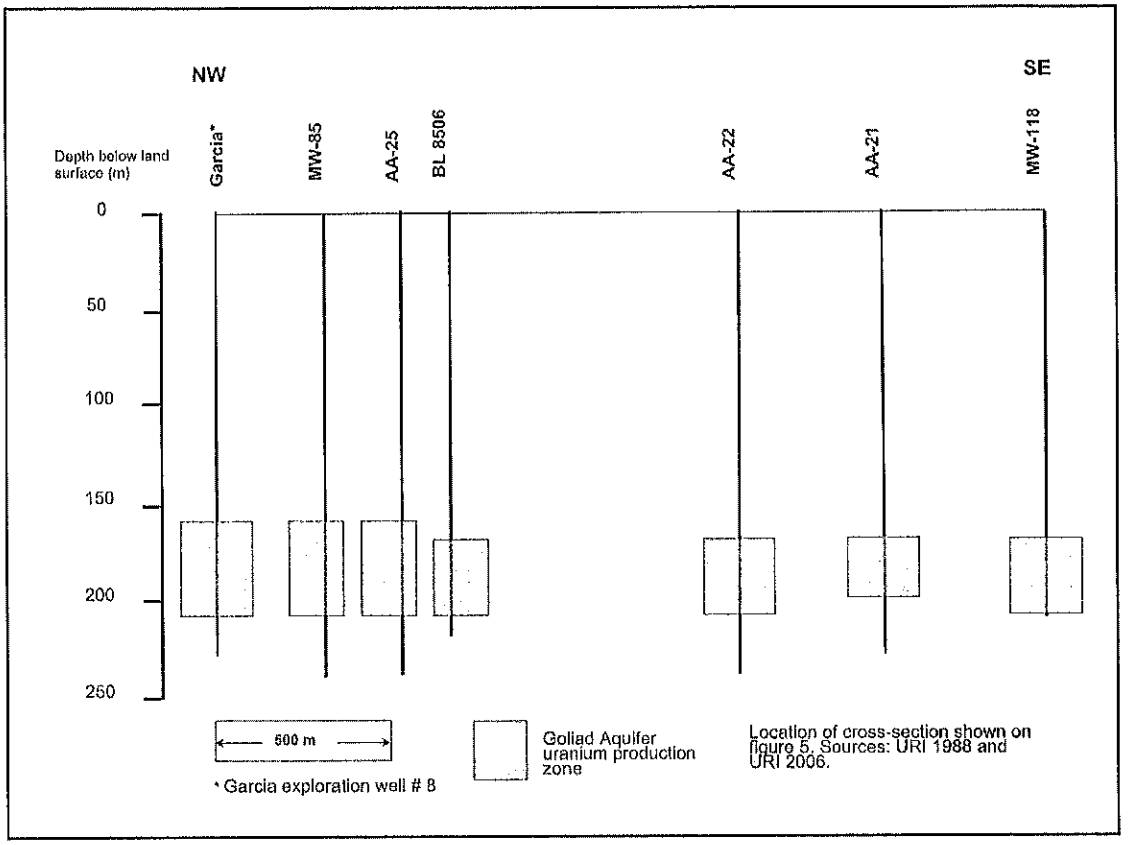

Figure 8
Cross section through PA-3 and Garcia property

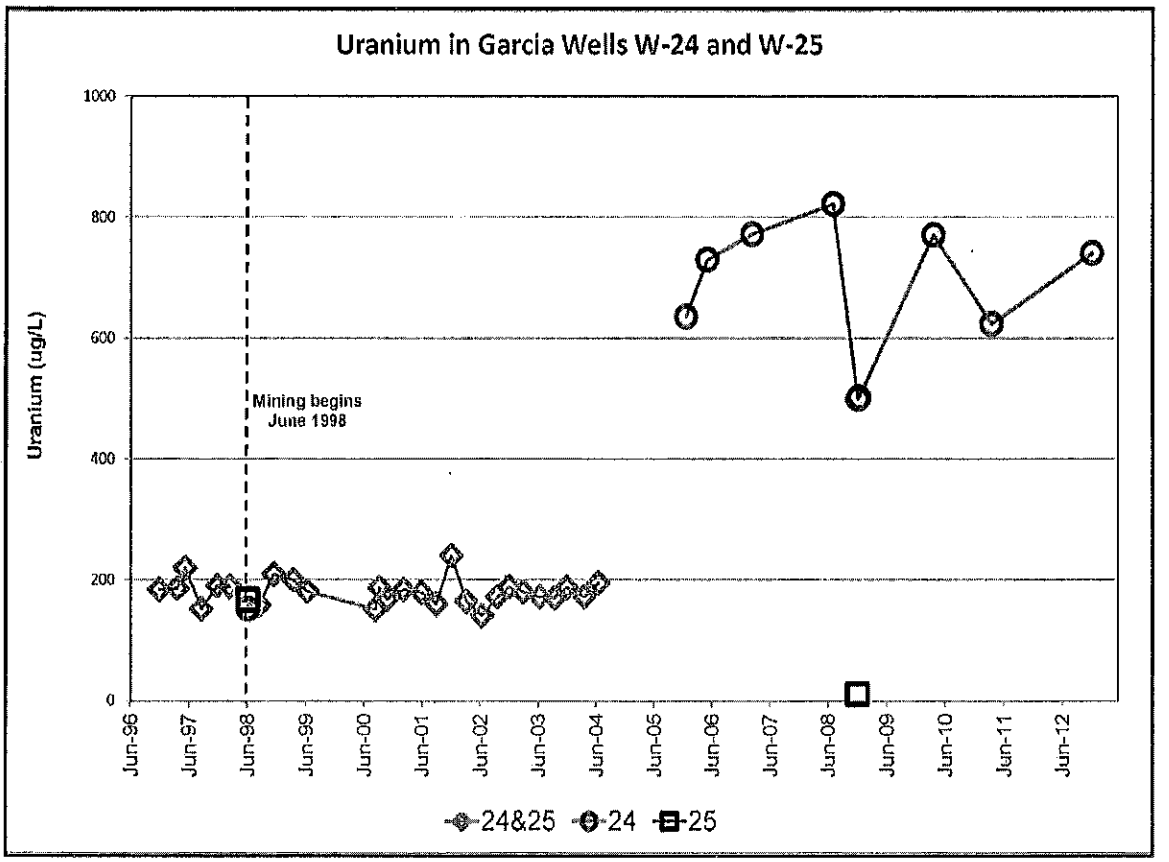

Figure 9
Uranium Concentrations in Garcia Wells

Attachment 2

Long Term Groundwater Monitoring at the Kingsville Dome Mine

Excerpt from Rice, 2006

7.5 Potential Consequence of Failure to Restore Groundwater Quality

Mining has increased the concentrations of a number of constituents (e.g., uranium, sulfate, molybdenum) in groundwater within the mine boundaries. In many cases concentrations remain above both baseline levels and EPA drinking water standards. If restoration fails to remove all of this contaminated groundwater, that which remains may adversely affect wells beyond the mine boundary.

Currently, the hydraulic gradients created by pumping for restoration and bleeds act to confine the affected groundwater within each PAA. Once this pumping stops, pre-mining gradients will be re-established and the affected groundwater may be transported beyond the mine boundaries.

The flow rate of the affected groundwater depends on local conditions. Some groundwater at the KVD Mine travels very slowly (< 10 ft/yr). This would not represent a threat to nearby wells for decades, or perhaps centuries. On the other hand, some groundwater travels relatively rapidly (> 100 ft/yr). This could adversely affect nearby wells in a decade or less.

It might be argued that the post-restoration migration of mining solutions won't be a problem. This is based on the premise that the oxidizing conditions created by mining (see section 3.2) are temporary. After mining and restoration ceases, the natural reducing conditions will be re-established. Reducing conditions will result in the precipitation (removal) of uranium and other constituents associated with the ore[11]. In addition, other attenuation mechanisms such as dispersion and sorption (geochemical attenuation) will act to decrease contaminant concentrations[12].

However, there is no guarantee that reducing conditions will be quickly re-established, or even that they will be re-established at all[13]. There is little if any indication that reducing conditions are being re-established at the KVD mine[14]. Although it has been more than five years since mining ceased in PAAs 1 and 2, concentrations of uranium, molybdenum,

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[11] NRC, 1983, page 31.
[12] Appendices G and H, comment 16; and Demuth and Schramke, 2006, pages iii and 36.
[13] NRC, 2005, page 17.
[14] URI has measured the oxidation/reduction potential of groundwater at the KVD Mine, but records of the measurements were discarded (Mike Maxson of URI, December 2005).

and sulfate remain well above their baseline levels[15]. Radium-226 concentrations also remain elevated[16].

There have been attempts to artificially restore reducing conditions at some in-situ uranium mines. However, the artificially restored reducing conditions may not persist for long periods of time[17].

URI's statements regarding the re-establishment of reducing conditions and the effectiveness of dispersion and sorption are not based on data from the KVD Mine[18]. URI has not performed a thorough investigation of these factors at the KVD Mine[19]. URI has proposed investigating these factors in the future[20].

If post-restoration concentrations remain above baseline levels and EPA drinking water standards, URI should be required to establish a long term monitoring program, and if necessary, restoration program at the mine. These programs should be designed in cooperation with the CRB.

How long should long-term monitoring be conducted? According to URI, the portion of the aquifer that was oxidized as a result of mining will eventually return to its original, reduced state[21]. As a result, redox-sensitive metals[22] such as uranium will be precipitated[23]. Thus, it seems reasonable to continue monitoring until redox conditions are permanently re-established and contaminant concentrations return to their pre-mining levels.

The issue of post-restoration contamination is also discussed in appendix H, responses to comments 2, and 16.

Appendix H
Response to URI's Comments on Draft Report of April 10, 2006

URI's comments are contained in: *Report to the Kleberg County Citizen Review Board,* May 12, 2006[24]. A summary of those comments is presented in appendix G.

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[15] See table 7.4-1.
[16] Compare values in tables 7.3.5.1-1 and 7.3.5.2-1 with the values in appendix F. The re-establishment of reducing conditions will not decrease radium-226 concentrations (Demuth and Schramke, 2006, pages ii and 32).
[17] At the Ruth, Wyoming in-situ uranium mine, hydrogen sulfide was injected into the production zone to restore reducing conditions. Subsequent monitoring indicated that oxidizing conditions began to reappear in less than a year (NRC, 2005, pages 17 and 18).
[18] Appendices G and H, comments 2 and 16.
[19] Although URI has measured the oxidation/reduction potential of groundwater at the KVD Mine, records of the measurements were not kept (Mike Maxson of URI, December 2005).
[20] Appendix G, recommendations for additional work; and Demuth and Schramke, 2006, pages 41 and 42.
[21] URI, 2006f, comments 2 and 16; and Demuth and Schramke, 2006, page iii.
[22] Redox sensitive constituents are those that are affected by changes in the oxidation-reduction potential of the groundwater. They include uranium, molybdenum, and sulfate.
[23] URI, 2006f, comments 2, 15, and 16. Also, Demuth and Schramke, 2006, pages iii and 41.
[24] URI, 2006f.

URI comment 2

During mining concentrations of uranium, molybdenum, bicarbonate, calcium, chloride, sulfate, and Total Dissolved Solids (Conductivity) were significantly higher than pre-mining concentrations and provide a distinct chemical signature that distinguishes "leach solution" from unaffected groundwater[6].

Response:

This comment concerns the effects of mining on groundwater quality, and the processes that will act to restore groundwater quality after mining ceases.

URI claims that after mining ceases, reducing conditions will be re-established. This will result in a decrease in the concentrations of uranium and other redox[25] sensitive constituents. This may be true. However, the re-establishment of reducing conditions, if it occurs, may take a long time.

There is little if any indication that reducing conditions are being re-established at the KVD mine[26]. It has been more than five years since mining ceased in PAAs 1 and 2. Concentrations of uranium, molybdenum, and sulfate remain well above their baseline levels[27]. Radium-226 concentrations also remain elevated[28]. The re-establishment of reducing conditions will not decrease radium-226 concentrations[29].

If they are not cleaned up, the remaining contaminants pose a risk to nearby groundwater resources. After restoration ceases they may be transported beyond the mine boundaries[30].

URI Comment 16

Even if restoration does not remove all elevated ISR constituents in groundwater, dispersion and attenuation make it is highly unlikely that groundwater could migrate beyond the mine boundaries after natural hydraulic gradients are reestablished.

Response:

This comment concerns the fate of the contaminants that will remain after restoration ends.

URI makes the following claims:

---

[25] Redox sensitive constituents are those that are affected by changes in the oxidation-reduction potential of the groundwater. They include uranium, molybdenum, and sulfate.
[26] URI has measured the oxidation/reduction potential of groundwater at the KVD Mine, but records of the measurements were discarded (Mike Maxson of URI, December 2005).
[27] See table 7.4-1.
[28] Compare values in tables 7.3.5.1-1 and 7.3.5.2-1 with the values in appendix F.
[29] Demuth and Schramke, 2006, pages ii and 32.
[30] See section 7.5.

1. Dispersion and geochemical attenuation make it highly unlikely that contaminants will migrate beyond the mine area.

2. Long-term monitoring is not practical.

3. URI will conduct additional analyses to demonstrate that the downgradient transport of contaminants will be limited by dilution and geochemical attenuation.

4. The portion of the aquifer that was oxidized as a result of mining will return to its original, reduced state. As a result, redox-sensitive metals such as uranium will be precipitated.

Item 1, Dispersion, geochemical attenuation, and migration

This is possible. However, it is equally possible that contaminants will migrate beyond the mine area. URI has not collected any data regarding dispersion or other attenuation mechanisms at the KVD Mine. URI claims to have measured the redox potential at the mine, but to have discarded the data[31]. URI's optimistic predictions are based on hydraulic and geochemical properties that they haven't measured.

Item 2, Long-term monitoring not practical

URI does not give any information to support this claim.

Item 3, URI will conduct analyses to demonstrate that migration will be limited

Presumably, such analyses will rely on the use of computerized models. Models can be used to predict future conditions. If the modeling is done properly, their results may approximate future conditions and may be used to design more effective and efficient restoration and monitoring systems. On the other hand, the modeling results may be little more than techno-nonsense.

For a modeling project to yield realistic results, the entity performing the modeling must have 1) skilled personnel, and 2) the site-specific data required to conduct realistic simulations[32]. URI may have access to skilled personnel, but they do not have the site-specific data.

However, even if modeling efforts are properly conducted, their results cannot replace real data. As stated above, models may be used to design monitoring systems, but they cannot replace monitoring.

---

[31] See section 7.5.

[32] This includes hydraulic data (e.g., groundwater velocities and dispersivities) and geochemical data (e.g., redox potentials and partition coefficients).

Item 4, Reducing conditions will be re-established and redox-sensitive metals will be precipitated

This is the essentially the same issue discussed in comment 2. A slightly modified version of the response to comment 2 is repeated here.

Reducing conditions may be re-established. However, the re-establishment, if it occurs, may take a long time.

There is little if any indication that reducing conditions are being re-established at the KVD mine. It has been more than five years since mining ceased in PAAs 1 and 2. Concentrations of uranium, molybdenum, and sulfate remain well above their baseline levels. Radium-226 concentrations also remain elevated[33].

If they are not cleaned up, the remaining contaminants pose a risk to nearby groundwater resources. After restoration ceases they may be transported beyond the mine boundaries[34].

References

Demuth, H., and J. Schramke, 2006, *Fate and Transport of Post-Restoration Groundwater Constituents at In-Situ Uranium Leach Facilities*, prepared for Uranium Resources Inc., May 10, 2006.

NRC (Nuclear Regulatory Commission), 1983, *Aquifer Restoration at In-Situ Leach Uranium Mines: Evidence for Natural Restoration Processes*, NUREG/CR-3136, PNL-4604, RU, April 1983.

NRC, 2005, *Consideration of Geochemical Issues in Groundwater Restoration at Uranium In-Situ Leach Mining Facilities*, Draft Report for Comment, NUREG/CR-6870, June 2005.

URI, 2006f, *Report to the Kleberg County Citizen Review Board*, May 12, 2006.

[33] Compare values in tables 7.3.5.1-1 and 7.3.5.2-1 with the values in appendix F. Note: the re-establishment of reducing conditions will not decrease radium-226 concentrations (Demuth and Schramke, 2006, page ii).
[34] See section 7.5.

August 5, 2015

Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

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UR/84705

CHIEF CLERKS OFFICE

2015 AUG 10 PM 3:00

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Armando Garcia.

My mailing address is 418 Garcia Hill, Kingsville, Texas 78363.

My day time telephone number is 361-592-2153.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live close to the URI uranium mine. I live about 750 feet west of Monitor Well 86.

I would be adversely affected by the proposed permit and major amendment because the uranium mine is contaminating the groundwater at Garcia Hill. I can no longer use my well and I have to use public water and it is very expensive. I am concerned for my health and for my wife's health also because we drank the contaminated water for at least eight years, before the EPA warned us that we need to buy public water

Sincerely,

Armando Garcia

Armando Garcia

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

8/7/15
Attn: Clerk
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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By

A

UR 04705

2015 AUG 10 PM 3:00
CHIEF CLERKS OFFICE

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Beto Garcia.

My mailing address is 418 Garcia Hill, Kingsville, Texas 78363.

My day time telephone number is 361-244-1866.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I raise goats at Garcia Hill close to the URI uranium mine – it is about 750 feet west of Monitor Well 86.

I would be adversely affected by the proposed permit and major amendment because the uranium mine is contaminating the groundwater at Garcia Hill. I cannot use the Garcia Hill well and I have to use public water and it is very expensive.

Sincerely,

Beto Garcia

Beto Garcia

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

Attn: Clerk 8/7/15
Bohac

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Mark M. Walsh

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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
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Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Blanca Garcia.

My mailing address is 418 Garcia Hill, Kingsville, Texas 78363.

My day time telephone number is 361-592-2153.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live close to the URI uranium mine. I live about 750 feet west of Monitor Well 86.

I would be adversely affected by the proposed permit and major amendment because the uranium mine is contaminating the groundwater at Garcia Hill. I can no longer use my well and I have to use public water and it is very expensive. I am concerned for my health and for my husband's health also because we drank the contaminated water for at least eight years, before the EPA warned us that we need to buy public water

Sincerely,

Blanca B Garcia

Blanca Garcia

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

Attn: Clerk 8/7/15
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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Ferman Garza.

My mailing address is 424 NFM 2619, Kingsville, Texas 78363.

My day time telephone number is 361 219 4330.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because the effects of the water.

I would be adversely affected by the proposed permit and major amendment because Because I live a quarter mile from them and has contaminated my water.

Sincerely, [signature]

signature Ferman Garza

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

8/7/15

Attn: Clerk
Bohac

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2213 Brun St.

Houston Texas 77019

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TCEQ, MC-105

P.O. Box 13087

Austin, Texas 78711-3087

Re: Request for Contested Hearing, Permit No. UR02827, URI's Kingsville Dome Mine Application for Renewal and Major Amendment for Class III Area Permit

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

I own a share of the minerals inside PAA3 -- in 160 acres of PAA3, Lots 3-6, Section 48, Kleberg County, Texas, so I have justifiable rights to request this hearing. These mineral interests are filed in Vol. 435, page 775 (Trustee's deed) of the Kleberg County deed records.

I would be affected because, due to TCEQ rules, the well fields are fenced and a sign is placed on gates warning those who enter about of the danger of radioactivity. Those fences and that signage discourage exploration of oil and gas of my minerals.

Furthermore, oil and gas exploration and production is obstructed due to numerous above and below ground pipes which carry highly contaminated fluids, as well as the thousands of production and injection wells. Uranium mining activity therefore reduces the likelihood of a new oil and gas lease – this is significant since there has been oil and gas production in that particular area for many years prior to mining. In that way, a new permit will have another adverse effect on me financially.

Very truly yours,

Jeanette Cumberland Hix

Hix
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Houston TX 77019

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2015 AUG 10 PM 3:00
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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Nerio Martinez.

My mailing address is 418 Garcia Hill, Kingsville, Texas 78363.

My day time telephone number is 361-246-5298.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live close to the URI uranium mine. My home is about 747 feet west of Monitor Well 86.

I would be adversely affected by the proposed permit and major amendment because the uranium mine is contaminating the groundwater at Garcia Hill. I can no longer use my well and I have to use public water and it is very expensive, plus my house is next door to the contaminated well so I am exposed to radiation just from the well itself. I am very concerned for my health and for my wife's health also.

Sincerely,

Nerio Martinez

Nerio Martinez

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

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Attn: Clerk
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Mark M. Walsh

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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Olga Martinez.

My mailing address is 418 Garcia Hill, Kingsville, Texas 78363.

My day time telephone number is 361-246-5298.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live close to the URI uranium mine. My home is about 747 feet west of Monitor Well 86.

I would be adversely affected by the proposed permit and major amendment because the uranium mine is contaminating the groundwater at Garcia Hill. I can no longer use my well and I have to use public water and it is very expensive, plus my house is next door to the contaminated well so I am exposed to radiation just from the well itself. I am very concerned for my health and for my husband's health also.

Sincerely,

Olga Martinez

Olga Martinez

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

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Attn: Clerk
Bohac

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Mark M. Walsh

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Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Diana B. Medina.

My mailing address is 383 NCR 1070, Kingsville, Texas 78363.

My day time telephone number is 361-522-3432.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because my family lives at the above referenced address. I have two dependants age 7+17.

I would be adversely affected by the proposed permit and major amendment because health reasons, we are concerned about chemicals seeping into our drinking water.

Sincerely,

Diana B Medina
signature

MW

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

Attn: Clerk 8/7/15
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Richard Scott Medina Sr.

My mailing address is 383 North Cr. 1070, Kingsville, Texas 78363.

My day time telephone number is (361) 522-3384.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live inside the mine.

I would be adversely affected by the proposed permit and major amendment because health reasons. I am in renal failure + a dialysis(em) patient. Concerns about chemicals reaching our drinking water.

Sincerely, Richard Scott Medina

signature

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

8/7/15
Attn: Clerk
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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2015 AUG 10 PM 3:01

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Carlos Ortegón.

My mailing address is 426 Garcia Hill Rd., Kingsville, Texas 78363.

My day time telephone number is 361-522-3829.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live 1/4 mile from the mining area. I also have a water well that is 75 ft. from the mine, plus I own land 1/4 mile from the mine

I would be adversely affected by the proposed permit and major amendment because I wont be able to use my well if the groundwater is contaminated like it is also my property will lose value if the groundwater is contaminated like it is at Garcia Hill.

Sincerely,

Carlos Ortegón

signature

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

8/7/15

Attn: Clerk
Bohac

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Thank you
Mark M. Walsh

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UR/84705

CHIEF CLERKS OFFICE
2015 AUG 10 PM 3:01
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Carlos Ortegon.

My mailing address is 418 Garcia Hill, Kingsville, Texas 78363.

My day time telephone number is 361-592-7557.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live close to the URI uranium mine.

Garcia Hill where I live is 747 feet west of Monitor Well 86.

I would be adversely affected by the proposed permit and major amendment because the uranium mine is contaminating the groundwater at Garcia Hill. I can no longer use my well and I have to use public water and it is very expensive. I am very concerned for my health and for my wife's health also.

Sincerely,

Carlos Ortegon

Carlos Ortegon

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

8/7/15
Attn: Clerk
Bohac

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Thank you
Mark M. Walsh

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August 4, 2015

Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

REVIEWED
AUG 10 2015
By

H

UR/84705

2015 AUG 10 PM 3:00
CHIEF CLERKS OFFICE
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Daniel Ortegon.

My mailing address is 418 Garcia Hill, Kingsville, Texas 78363.

My day time telephone number is 361-219-1355

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live close to the URI uranium mine. I live about 750 feet west of Monitor Well 86.

I would be adversely affected by the proposed permit and major amendment because the uranium mine is contaminating the groundwater at Garcia Hill. I cannot use my well and I have to use public water and it is very expensive.

Sincerely,

Daniel Ortegon

Daniel Ortegon

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

Attn: Clerk 8/7/15
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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Ms. Bridget C. Bohac, Chief Clerk
TCEQ MC-105
P.O. Box 13087
Austin, TX 78711-3087

TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY
2015 AUG 10 PM 2:59
CHIEF CLERKS OFFICE

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August 4, 2015

Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

REVIEWED
AUG 10 2015
By

H

UR/84705

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
2015 AUG 10 PM 3:00
CHIEF CLERKS OFFICE

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Norma Garza. Ortegon

My mailing address is 418 Garcia Hill, Kingsville, Texas 78363.

My day time telephone number is 361-455-6672

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because I live close to the URI uranium mine. I live about 750 feet west of Monitor Well 86.

I would be adversely affected by the proposed permit and major amendment because the uranium mine is contaminating the groundwater at Garcia Hill. I cannot use my well and I have to use public water and it is very expensive.

Sincerely,

Norma Ortegon

Norma Garza Ortegon

MW

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

Attn: Clerk 8/7/15
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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Ms Bridget C. Bohac, Chief Clerk
TCEQ MC-105
P.O. Box 13087
Austin, TX 78711-3087

TEXAS
COMMISSION
ON ENVIRONMENTAL
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2015 AUG 10 PM 2:52
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August 5, 2015

Bridget C. Bohac, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

REVIEWED
AUG 10 2015
By

H

UR/84705

CHIEF CLERKS OFFICE

2015 AUG 10 PM 3:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Alfonso R. Ramos.

My mailing address is 2425 FM 1717, Kingsville, Texas 78363.

My day time telephone number is 361-455-3825.

The applicant is URI, Inc. The permit number is UR02827.

I request a contested case hearing.

I have a personal interest because my home is very close to the mine area.

I would be adversely affected by the proposed permit and major amendment because of my only water source is my well.

Sincerely,

Alfonso R. Ramos
signature

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

Attn: Clerk 8/7/15
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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Ms. Bridget C. Bohac, Chief Clerk
TCEQ MC-105
P.O. Box 13087
Austin, TX 78711-3087

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TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY
2015 AUG 10 PM 2:59
CHIEF CLERKS OFFICE

August 7, 2015

UR 84705

2015 AUG 13 PM 2:59
CHIEF CLERKS OFFICE

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Bridget C. Bohac, Chief Clerk
TCEQ MC-105
P.O. Box 13087
Austin, Texas 78711-3087

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Leonardo Ramos, Jr.
My mailing address is 580 N. County Road 1090, Kingsville, Texas 78363
My day time telephone number is 1-361-592-8657 or 1-361-249-6737

The applicant is URI, Inc. The permit number is UR02827

I request a contested case hearing.

I have a personal interest because I live very close to the uranium mining area. I have a water well that I depend on for human consumption as well as animal consumption. I have documentation that shows how my water well is affected when URI, Inc. mines the area. I would be adversely affected by the proposed permit and major amendment because this would contaminate my water well and render it dangerous to use. I welcome an invitation to discuss this matter at your earliest convenience.

Respectfully,

Leo Ramos Jr.

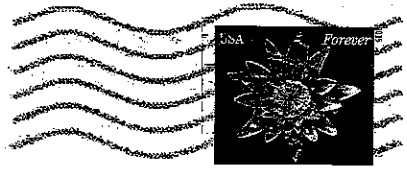
Leonardo Ramos, Jr.

REVIEWED
SEP 15 2015
By HP

H

LEO RAMOS, JR.
580 N CR 1090
KINGSVILLE, TX 78363-8841

CORPUS CHRISTI
TX 784
11 AUG 2015 PM 2 L



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COMMISSION
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QUALITY
2015 AUG 13 PM 2:59
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BRIDGET C. BOHAC, CHIEF CLERK
TCEQ, MC-105
P.O. BOX 13087
AUSTIN, TX 78711-3087

78711$3087 B012

Eleuterio L. Saenz

148 E. Cr. 2170

Kingsville, Texas 78363

361-592-4156

361-455-5341

saenzteo@yahoo.com

REVIEWED
AUG 05 2015
By AP

08-02-2015 RE:Request Contested Case Hearing,

URI,Inc. Permit no. UR02827

UR 84705

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
2015 AUG -5 PM 2:26
CHIEF CLERKS OFFICE

Bridget C. Bohac, Chief-Clerk

TCEQ, MC-105

P.O. Box 13087

Austin, Texas 78711-3087

Gentlemen:

I am requested a Contested Case Hearing on the permit request by URI, Inc., Permit No. UR02827.

YOUR REQUEST MUST DEMONSTRATE THAT YOU ARE AN "AFFECTED PERSON".

Response: I AM AN AFFECTED PERSON and I do have a justiciable interest because I own 40 mineral acres and 30 surface acres in Lot 1 (see enclosed maps) of Block 42 on the Kleberg Town and Improvement Company (South Part) Plat which is directly North and adjacent to PAA 3. I am able to provide tax receipts, if requested, to demonstrate ownership. I also drank contaminated water from water well WW-24 before residents were advised to not drink the water. See Attachment E for map.

YOUR REQUEST MUST RAISE DISPUTED ISSUES OF FACT THAT ARE RELEVANT AND MATERIAL TO THE COMMISSION'S DECISION ON THIS APPLICATION. THE REQUEST MUST BE BASED ON ISSUES THAT WERE RAISED DURING THE COMMENT PERIOD:

Response:

1. Please see the 12 pages of Attachment A which is attached.
2. If you look at the well log for WW-24 in Attachment D you will notice that the log does not show high levels of Uranium. A comparison of well logs for the City of

Kingsville water wells and WW-24 is made in Attachment D and you will notice that they are similar and yet the City of Kingsville wells do not have high levels of Uranium. The argument made by Don Redmond in the July 14, 2015 document (Decision of the Executive Director, How To Request A Contested Case Hearing, Etc.) states that evidence at the SOAH hearing, Docket No. 582-05-1552, suggested that the elevated levels of Uranium in Garcia Hill were naturally occurring. To my recollection, the log for WW-24 was not presented as evidence at the SOAH proceedings and URI's argument that the high Uranium levels was naturally occurring and that Well WW-24 was drilled into an ore body is not supported by the log and the facts.

3. Also, different parties took water quality samples of WW-24 reaching similar results. In the Survey of Uranium and Radon in Private Wells in Kleberg County by Yaneth Gamboa, Waldy Fernandez, and Dr. Lee Clapp of the Department of Environmental Engineering, Texas A & M University-Kingsville , Yaneth Gamboa explained her procedure for collecting the water sample and she followed states that she followed standard collection procedures and that the water sample was from WW-24 (See Attachment C). Also, George Rice and Muhammad from TCEQ also took water samples. The statement made by Don Redmond that TCEQ staff cannot verify the source of water in either tank when testing "does not hold water".
4. Please see Attachment B which is table 5 of a Technical Paper authored by hydrologist George Rice and titled Excursions of Mining Solution at the Kingsville Dome In-situ Leach Uranium Mine. Please note the elevated Uranium Concentrations ranging from 1170 ug/L uranium to 5170 ug/L. Also, the Uranium Control parameter upper limit used to indicate excursion of mining solution in URI's Area 3 is 6.54 mg./l which is derived by adding an arbitrary number to the upper limit which HAS NO SCIENTIFIC BASIS. Therefore, a Uranium level of 5170 ug/L in a monitor well demonstrates that uranium has migrated from the mining area to the monitor well but such a situation does not have to be reported to TCEQ because the arbitrary level of 6.54 mg/l has not been reached and URI is not required to take action. The excursion level of 6.54 mg/l must be changed in order to allow time to take action to reverse the migration of drilling fluids past the monitor well ring as happened in Garcia Hill WW-24.
5. Uranium levels of water wells in Garcia Hill were within drinking water standard before any investigation and/ or mining activity and mining did occur in PAA 3 in 1998 and 1999 and then resumed in 2007. Mining fluid from mining the first phase of PAA3 would travel Northwest toward the Garcia Hill WW-24.

In conclusion, a lot of data now exists since the SOAH hearing Docket No. 582-05-1552 and should be considered in a contested case hearing. The logo in the TCEQ trucks states that TCEQ's function is to PROTECT THE PEOPLE OF Texas (and Garcia Hill is part of Texas). Skip the politics and do what is right.

Thank you,

Eleuterio (Teo) Saenz

ATTACHMENT A

The following issues of fact are disputed and relevant to the groundwater contamination complaint that I have made concerning water well WW-24 at Garcia Hill contaminated by URI Inc. in the KVD mine :

1. The Control Parameter Upper Limits determine whether or not the operator is obligated to take action to control an excursion detected by the monitor wells. When an excursion is detected, the operator can adjust the pressures to maintain a balance so that mining fluids do not escape the well fields. The upper limits value on uranium is based on the highest concentration found in the production area. At the KVD, the upper limit value is flawed because it was not determined according to proper statistical practices; in some cases, samples were collected after mining had started up-gradient. In addition, the upper limits are set extremely high with no relationship to the monitor well baseline (5 mg. is added to the highest value), so that the uranium concentration in a monitor well can be considerably higher than the monitor well baseline, yet not exceed the upper limit. For example, the baseline for uranium in Monitor Well 102 is 0.020 mg/L, well below the MCL of 0.03 mg/L. However, detection of an excursion of uranium is not triggered until the concentration of uranium in the monitor well is above the upper limit of 6.154 mg/L, three hundred and eight times greater than the baseline.

2. Rules require that water levels in the monitor wells are monitored during mining. Increased water levels can be used to detect excursions; however, at the KVD, in spite of increasing water levels in the monitor wells, no action, or insufficient action, was taken by the operator to control water pressure within the minefield.

3. A continuous bleed is required to prevent excursions by keeping mine fluids within the mine field. Yet in 2003 the TCEQ inspector reported that a bleed was not maintained for months (May through December).

4. Restoration is required to begin shortly after mining is completed within a mine field. Restoration will reduce the concentration of ground water contaminants. At the KVD, mining was initially started in 1988. Restoration is still not complete, twenty-seven years later. That extreme delay has contributed to groundwater contamination outside the mine by allowing more time for injected oxygen to dissolve uranium and for the contaminated water within the mine to migrate.

5. In 1997 the TCEQ inspector reviewed the lab results for wells in the area of review and found that the uranium concentration in the Garcia storage tank increased from 0.011 mg/L to .184 mg/L. See 1997 inspection report by TNRCC and attachment X-2. See also #1 below regarding dates for MCL rule for uranium. However, the TCEQ took no action until 2005 when, apparently without examining the well log, it advised the Garcia families not to drink their water and that uranium in their water was naturally occurring.

6. Specifically, the Garcia groundwater is contaminated as follows:

In 1988, as part of its application to the TCEQ (formerly called the Texas Water Commission) to expand the KVD mine from 531 acres to 2,135 acres, URI tested the water wells located near the perimeter of the expansion area. On May 13, 1988, it filed lab reports on those wells as part of the application. Two lab reports for Garcia family wells were included: one was called "A. Garcia" (the storage tank) and the other called "Y.G. Garcia" (the well in the pasture). Before that date, URI had numbered the water wells on the perimeter; please note that these wells were called WW24 and WW25 in other lab reports – in the 1988 application, the well in pasture was called WW20 on the map enclosed with the application.

The Garcia families live within one-fourth mile of the expansion area at a settlement called Garcia Hill. In the early nineteen forties, they drilled a water well which was then connected to a storage tank. The storage tank was connected to the Garcia family homes. There are about nine homes. In 1967, a second well was drilled and it was also connected to the storage tank. A third well was located in a pasture northeast of the homes but it was not connected to the storage tank.

When on March 31, 1988, URI obtained a sample of the so-called "A. Garcia" well, it obtained that sample from the storage tank. See #2 below for Pelizza's day five, 2005 testimony, page 166, lines 18-25, and page 168, lines 18-25. There was no other access to obtain a sample of the water; the original well and the 1967 well were both connected directly to the tank. To increase water pressure for distribution of water to the homes, a pressure tank was installed between the storage tank and the main line to the homes. There was and is a tap on the storage tank and there was and is a tap on the pressure tank.

On the same date, URI obtained a sample from the so-called "Y.G. Garcia" well – that well was located in a pasture northeast of Garcia Hill and is designated WW20 on URI maps, including the 1988 map which was part of the 1988 expansion application. The well is located on property inherited from her father by Zulema Garcia Martinez, part of the original Garcia estate. (After the 1988 test, WW20 was never tested again, according to TCEQ records.)

For "A. Garcia," the lab reported 0.011 mg/L uranium and 1.1 pCi/L Radium; for "Y.G. Garcia," the lab reported 0.032 mg/L uranium and 3.2 pCi/L Radium. See #3 March 31, 1988 lab reports below.

In 1989, while exploring for uranium on the Garcia property, URI drilled an exploration well about twenty-five feet southeast of the original Garcia well – the gamma ray log of that well recorded an insignificant ore grade, consistent with the below EPA drinking water standard for uranium observed in the water in numerous wells in the Garcia Hill area. See ATTACHMENT B, 141121GoliadAquifersUoreRadiometricGradesAroundKVDsPA-3Area_01 (1), sent separately as an e-comment. That exploration well, unlike others, was therefore not used for uranium production. URI then plugged the original well because the exploration well was to be used for drinking water and all other purposes, since it was a newer well in almost the same location, very close to the storage tank. A pump was installed in the exploration well which was then connected to the existing storage tank.

Please note that it is not likely that URI would have logged a well, found that the well had been drilled into an ore deposit "trend," as it has defended, and then offered it as a drinking water source to anyone.

According to TCEQ records, the Garcia Hill water was not tested again until December 1996. As in 1988, the December 13, 1996 sample was obtained from the storage tank. See #2 Pelizza testimony below. The lab reported 0.184 mg/L uranium and 0.07 pCi/L Radium – seventeen times higher than the 1988 value on the sample obtained from the same storage tank. See #4 December 13, 1996 lab report below.

Beginning December 1996, URI tested the Garcia water quarterly. In its records including maps, URI had designated the exploration well WW24 (the same number it had given the original Garcia Hill well); it had designated the 1967 well which was also connected to the storage tank as WW25. Test results between 1996 and 2004 remained generally at 0.200 mg/L; results were charted in 2004 by Region Six EPA. See #5 *URI/Kingsville Dome Project Combined W24 & W25 Garcia Hills Domestic Wells Water Quality Data* below.

In 2005, after receiving notification from the EPA that their water had high levels of uranium, the Garcia families connected to public water; initially the water wells were disconnected from the storage tank. The public water line was then connected to the storage tank and at least twice in 2005 URI sampled public water. Early in 2005, the second water well (the well drilled in 1967) was shut in due to excess sanding. In late 2005, the public water line was disconnected from the storage tank and connected to the main line to distribute water to the homes. At that time, the exploration well was reconnected to the storage tank.

Beginning in late 2005, uranium concentrations in the exploration well, whether sampled from the storage tank tap or the pressure tank tap, began to elevate even higher although Radium concentrations remained generally the same. Please see the following:

Date	U (mg/L)	Ra-226 (pCi/L)
Dec. 2005	0.636	1.3
March 2006	0.750	--
May 2006	0.730	1.2
Feb. 2007	0.732	1.3
March 2007	0.797	1.1
June 2007	0.979	1.1
March 2008	0.729	1.3
June 2008	0.649	1.6
July 2008	0.822	--

Aug. 2008	0.943	2.8
Dec. 2008	0.502	1.0
March 2009	0.700	1.7
May 2009	0.600	1.1
March 2010	0.760	1.2
June 2010	0.848	0.91
Sept. 2010	0.770	1.3
Dec. 2010	0.699	1.1
March 2011	0.624	1.4
June 2011	--	1.1
Oct. 2011	--	1.5
Dec. 2011	1.04	--
March 2012	0.917	0.74
June 2012	0.862	1.2
Dec. 2012	1.07	1.08
March 2013	0.780	1.2
June 2013	0.749	.98
March 2014	0.975	1.5

In December 2011, when URI tested the Garcia well; the results were 1.04 mg/L uranium (over 1000 micrograms per liter – the EPA water quality standard is 30 micrograms per liter uranium). See the test result here:

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Uranium Resources Inc.
Project ID: KVD Q4 GW 2011
Sample ID: GARCIA WELL

ACZ Sample ID: *L92474-01*
Date Sampled: *12/21/11 09:30*
Date Received: *12/22/11*
Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	0.0027			mg/L	0.0005	0.002	01/10/12 17:48	msh
Cadmium, dissolved	M200.8 ICP-MS		U		mg/L	0.0001	0.0005	01/10/12 17:48	msh
Iron, dissolved	M200.7 ICP		U		mg/L	0.02	0.05	01/03/12 12:10	mfm
Manganese, dissolved	M200.7 ICP		U		mg/L	0.005	0.03	01/03/12 12:10	mfm
Mercury, dissolved	M7470A CVAA		U		mg/L	0.0002	0.001	01/13/12 23:20	erl
Molybdenum, dissolved	M200.7 ICP	0.07			mg/L	0.01	0.05	01/03/12 12:10	mfm
Selenium, dissolved	M200.8 ICP-MS	0.0065			mg/L	0.0001	0.0003	01/10/12 17:48	msh
Uranium, dissolved	M200.8 ICP-MS	1.040			mg/L	0.001	0.006	01/12/12 19:54	msh

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride	SM4500Cl-E	250		*	mg/L	10	50	12/28/11 18:36	lhb
Conductivity @25C	SM2510B	1680			umhos/cm	1	10	12/28/11 18:02	lee

By late 2012, the exploration well had been connected directly to the pressure tank, bypassing the storage tank. On December 20, 2012, early in its investigation, TCEQ obtained a sample from both the pressure tank which was connected directly to the exploration well and the storage tank which was not being used. The prior month, I met TCEQ enforcement director Derek Eades and inspector Muhammed Abbuzadeh at the site of the exploration well. Mr. Abbuzadeh said he would also test the storage tank although he knew it was no longer being used. The test results of the "active working well Garcia Hill"

were 1.07mg/L uranium and 1.08 pCi/L Radium. See that report here:

Texas Department of State Health Services Laboratory

1100 West 49th Street
Austin, Texas 78756-3194

Environmental Sciences Branch
Radiochemical Analysis Report

Tel. (512) 776-7587
FAX (512) 776-7757

DSHS Sample Number: AC07093
Sample Type: Water
Submitter: TCEQ
Submitter ID: Garcia Hill
Active (working) well
TCEQ Sample ID: 1 of 4

Date Collected: 12/20/12 9:34 AM
Date Received: 12/21/12

Analyte/ Radionuclide	Method	Activity	Combined Standard Uncertainty k=1	Units	MDA	Critical Level
Radium-226	SM 7500-Ra D	1.08E-09	6E-11	µCi/ml	3E-11	1E-11
Total Uranium	SM 7500-U C	1066	62	µg/ml	4.7	2.3
Uranium-234	SM 7500-U C	3.23E-07	2.3E-08	µCi/ml	1.1E-09	6E-10
Uranium-235	SM 7500-U C	2.1E-08	3E-09	µCi/ml	1.6E-09	8E-10
Uranium-238	SM 7500-U C	3.55E-07	2.7E-08	µCi/ml	1.3E-09	7E-10
Total Uranium Activity	SM 7500-U C	6.98E-07	5.4E-08	µCi/ml	4.0E-09	2.0E-09
Gross Alpha	EPA 900.0	8.79E-07	9E-09	µCi/ml	1.6E-09	8E-10
Gross Beta	EPA 900.0	3.56E-07	5E-09	µCi/ml	3.9E-09	2.0E-09

Analyte/ Radionuclide	Tracer/ Carrier Yield	Sample Volume/Mass Used (mL)	Batch ID	Analysis Date	Analyst	Data Reviewer
Radium-226	0.708	2000	50814	24-Jan-13	SAW	SJG
Total Uranium (µg/ gram)	0.778	50	51636	12-Feb-13	SJG	VK
Uranium-234	0.778	50	51194	12-Feb-13	SJG	VK
Uranium-235	0.778	50	51194	12-Feb-13	SJG	VK

Comparison of Garcia water values after 1988 with the concentration of leaching solution, as in the TCEQ response to Mr. Saenz' comment, is not based on ordinary science -- the exploration well is a considerable distance from the injection wells and by the time the water reaches the Garcia well it is grossly diluted.

Footnotes

#1. Dates for MCL rule for uranium: In 1991, EPA proposed a MCL of 0.02mg/L for uranium – giving notice to the state programs under the Safe Drinking Water Act that uranium was to be regulated. In 2000, it revised that proposal with a final rule of a MCL of 0.03 mg/L based on a cost/benefit analysis; that rule was fully effective in 2003. See https://www.federalregister.gov/articles/2000/12/07/00-30421/national-primary-drinking-water-regulations-radionuclides-final-rule#h-12 In 2000, the announcement of the final rule, based on cancer rates and kidney toxicity, was notice to the TNRCC that closer attention was expected of its UIC program under the Safe Drinking Water Act due to the danger of levels over 0.03mg/L uranium in drinking water.

#2. Pelizza's day five, 2005 testimony, page 166, lines 5-11, and page 168, lines 18-25.

5 A. Well, no. Obviously we don't replace the well

6 that we plug. We sample the well that we replace. So

7 what we sampled and have sampled since about 1996 is the

8 tank from Garcia Hill, which is fed from two water

9 wells. One is a new water well that we drilled in 1989

10 subsequent to the samples that were taken in

11 Protestant's Exhibit 10 and Protestant's Exhibit 8.

.....

18 That well -- you know, we sample a

19 combined two wells at the Garcia Hill community. And I

20 think that we have a designation 24/25. We sample wells

21 out of a common tank because my understanding on how

22 that's operated is those wells are pumped individually

23 and the water is commingled into a common tank before it

24 goes to a tap where it can be sampled. And I think

25 that's the understanding that we noted on this map that

#3. March 31, 1988 lab reports .

TEL. 512-884-0371 PO BOX 2552 78403

JORDAN LABORATORIES, INC.
CHEMISTS AND ENGINEERS
CORPUS CHRISTI, TEXAS
MAY 12, 1988

URI, INC.
12377 MERIT DR., SUITE 750, LB14
DALLAS, TEXAS 75251

REPORT OF ANALYSIS

IDENTIFICATION: A. GARCIA
3-31-88

		ANALYSIS DATE
PH ---------- 3.19		4-04-88
SPECIFIC CONDUCTANCE 1640 UMHOS/CM @ 25 DEG.C.		4-27-88
	MG/L	
TOTAL DISSOLVED SOLIDS (180 DEG.C.) ----------	974	4-11-88
ARSENIC ----------	0.003	4-08-88
COPPER ----------	<0.01	5-03-88
MOLYBDENUM ----------	0.01	5-03-88
SELENIUM ----------	0.003	4-08-88
URANIUM (NATURAL) ----------	0.011	4-18-88
GROSS ALPHA ACTIVITY, PCI/L ---------- 9.2 +/- 11		4-27-88
GROSS BETA ACTIVITY, PCI/L ---------- 6.3 +/- 6.2		4-27-88
RADIUM 226, PCI/L ---------- 1.1 +/- 0.2		4-13-88
THORIUM 230, PCI/L ---------- -0.4 +/- 0.7		5-12-88

LAB. NO. M26-2219

RESPECTFULLY SUBMITTED,

CARL F. CRUWNOVLR

TEL. 512-884-0371 PO BOX 2552 78403

JORDAN LABORATORIES, INC.
CHEMISTS AND ENGINEERS
CORPUS CHRISTI, TEXAS
MAY 12, 1988

URI, INC.
12377 MERIT DR., SUITE 750, LB14
DALLAS, TEXAS 75251

REPORT OF ANALYSIS

IDENTIFICATION: Y.C. GARCIA
3-31-88

		ANALYSIS DATE
PH ----------	8.24	4-04-88
SPECIFIC CONDUCTANCE 1550 UMHOS/CM @ 25 DEG.C.		4-27-88
	MG/L	
TOTAL DISSOLVED SOLIDS (180 DEG.C.) ----------	858	4-11-88
ARSENIC ----------	<0.001	4-08-88
COPPER ----------	<0.01	5-03-88
MOLYBDENUM ----------	0.08	5-03-88
SELENIUM ----------	0.010	4-08-88
URANIUM (NATURAL) ----------	0.032	4-18-88

GROSS ALPHA ACTIVITY, PCI/L ------	22 +/- 13	4-27-88
GROSS BETA ACTIVITY, PCI/L -------	21 +/- 7	4-27-88
RADIUM 226, PCI/L ----------	3.2 +/- 0.2	4-13-88
THORIUM 230, PCI/L ----------	0.6 +/- 0.9	5-12-88

LAB. NO. M26-2220

RESPECTFULLY SUBMITTED,

CARL F. CROWNOVER

#4. December 13, 1996 lab report.

JORDAN LABORATORIES, INCORPORATED
ANALYTICAL & ENVIRONMENTAL CHEMISTS
CORPUS CHRISTI, TEXAS
FEBRUARY 5, 1997

URI, INC.
12750 MERIT DRIVE, SUITE 1020, LB12
DALLAS, TEXAS 75251

1996
URI-KVD
RML: RW3653

REPORT OF ANALYSIS

IDENTIFICATION: KVD
GARCIA
12-13-96

METHOD NUMBER			ANALYSIS DATE
SM 4500-H	PH ----------	8.14	12-27-96
SM 2510	SPECIFIC CONDUCTANCE 1660 UMHOS/CM @ 25 DEG.C.		12-27-96
ASTM D2907-83	URANIUM (NATURAL), MG/L ----------	0.184	12-31-96
SW-846 9310	GROSS ALPHA ACTIVITY, PCI/L ----------	108	01-28-97
	COUNTING ERROR, PCI/L ---------- +/-	10	
SW-846 9310	GROSS BETA ACTIVITY, PCI/L ----------	45	01-28-97
	COUNTING ERROR, PCI/L ---------- +/-	5	
SM 7500-RA C.	RADIUM 226, PCI/L ----------	0.7	01-23-97
	COUNTING ERROR, PCI/L ---------- +/-	0.1	

ANALYSTS: STRAUSS (PH, SPEC. CONDUCTANCE, RADIUM 226);
KUME (URANIUM); CHAPA (GROSS ALPHA/BETA)

LAB. NO. M34-11334

RESPECTFULLY SUBMITTED,

CARL F. CROWNOVER, PRES.

Form: S2-4

00048

#5. URI/Kingsville Dome Project Combined W24 & W25 Garcia Hills Domestic Wells Water Quality Data.

URI/Kingsville Dome Project
Combined W-24 &W-25 Garcia Hills Domestic Wells Water Quality Data

Sample ID	Uranium (mg/l)	Gross Alpha (pCi/l)	Gross Beta (pCi/l)	Radium 226 (pCi/l)	Specific conductance and PH
12/13/96	0.184	108(+/-)10	45 (+-) 5	0.7 (+-) 0.1	1660 / 8.14
5/23/97	0.220	124 (+-) 11	40 (+-) 5	0.7 (+-) 0.1	1570 / 8.18
8/29/97	0.152	67 (+-) 8	45 (+-) 5	0.5 (+-) 0.1	1620 / 8.18
2/25/98	0.189	88 (+-) 9	32 (+-) 4	0.7 (+-) 0.1	1630 / 8.05
W-24 only 6/18/98	0.152	103 (+-) 10	37 (+-) 5	0.8 (+-) 0.1	1640 / 8.14
W-25 only 6/18/98	0.167	102 (+-) 10	30 (+-) 5	0.9 (+-) 0.1	1630 / 8.20
8/27/98	0.158	94 (+-) 10	36 (+-) 5	0.7 (+-) 0.1	1660 / 8.21
11/25/98	0.209	111 (+-) 10	48 (+-) 5	0.7 (+-) 0.1	1630 / 8.04
3/26/99	0.200	99 (+-) 10	45 (+-) 5	1.2 (+-) 0.1	1620 / 8.15
6/21/99	0.181	96 (+-) 10	49 (+-) 5	0.7 (+-) 0.1	1630 / 8.09
8/24/00	0.151	71 (+-) 8	24 (+-) 4	0.9 (+-) 0.1	1560 / 8.28
9/19/00(Split with TDH)	0.187	Na	Na	0.4 (+-) 0.1	1600 / 8.30
11/6/00	0.168	72 (+-) 7	31 (+-) 5	0.9 (+-) 0.1	Na
2/19/01	0.184	78 (+-) 7	24 (+-) 4	0.7 (+-) 0.1	1570 / 8.15
06/11/01	0.179	72 (+-) 7	38 (+-) 4	0.8 (+-) 0.1	1510 / 8.03
9/13/01	0.160	81 (+-) 8	32 (+-) 4	0.8 (+-) 0.1	1430 / 8.03
12/17/01	0.240	113 (+-) 9	26 (+-) 5	0.9 (+-) 0.1	1610 / 0.1
3/21/02	0.164	89 (+-) 9	33 (+-) 4	0.8 (+-) 0.1	1680 / 8.16
6/26/02	0.141	74 (+-) 8	22 (+-) 4	0.6 (+-) 0.1	1720 / 8.17
9/30/02	0.172	82 (+-) 8	11 (+-) 3	0.8 (+-) 0.1	1660 / 8.13
12/13/02	0.188	126 (+-) 10	28 (+-) 4	0.7 (+-) 0.1	1590 / 8.13
3/11/03	0.180	134 (+-) 11	29 (+-) 4	0.7 (+-) 0.1	1760 / 8.27
6/23/03	0.172	78 (+-) 8	19 (+-) 4	0.7 (+-) 0.1	1600 / 8.11
9/26/03	0.170	135 (+-) 14	21 (+-) 4	0.6 (+-) 0.1	1710 / 8.20
12/12/03	0.187	118 (+-) 13	22 (+-) 4	0.8 (+-) 0.1	1630 / 8.05

00150

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Texas Department of State Health Services Laboratory

1100 West 49th Street
Austin, Texas 78756-3194

Environmental Sciences Branch
Radiochemical Analysis Report

Tel. (512) 776-7587
FAX (512) 776-7757

DSHS Sample Number: AC07093
Sample Type: Water
Submitter: TCEQ
Submitter ID: Garcia Hill
Active (working) well
TCEQ Sample ID: 1 of 4

Date Collected: 12/20/12 9:34 AM
Date Received: 12/21/12

Analyte/ Radionuclide	Method	Activity	Combined Standard Uncertainty k=1	Units	MDA	Critical Level
Radium-226	SM 7500-Ra D	1.09E-09	6E-11	µCi/ml	3E-11	1E-11
Total Uranium	SM 7500-U C	1066	82	µg/ml	4.7	2.3
Uranium-234	SM 7500-U C	3.23E-07	2.3E-08	µCi/ml	1.1E-09	6E-10
Uranium-235	SM 7500-U C	2.1E-08	3E-09	µCi/ml	1.6E-09	8E-10
Uranium-238	SM 7500-U C	3.55E-07	2.7E-08	µCi/ml	1.3E-09	7E-10
Total Uranium Activity	SM 7500-U C	6.99E-07	5.4E-08	µCi/ml	4.0E-09	2.0E-09
Gross Alpha	EPA 900.0	6.79E-07	9E-09	µCi/ml	1.6E-09	8E-10
Gross Beta	EPA 900.0	3.56E-07	5E-09	µCi/ml	3.9E-09	2.0E-09

Analyte/ Radionuclide	Tracer/ Carrier Yield	Sample Volume/Mass Used (mL)	Batch ID	Analysis Date	Analyst	Data Reviewer
Radium-226	0.708	2000	50814	24-Jan-13	SAW	SJG
Total Uranium (µg/ gram)	0.778	50	51835	12-Feb-13	SJG	VK
Uranium-234	0.778	50	51194	12-Feb-13	SJG	VK
Uranium-235	0.778	50	51194	12-Feb-13	SJG	VK

Exhibit 3

Excursions of Mining Solution at the Kingsville Dome In-situ Leach Uranium Mine

by George Rice

Hydrologist, GRGwH

Abstract

In-situ leach (ISL) uranium mining differs from conventional mining in that it does not require excavation of ore. Instead, uranium is mobilized by injecting leaching fluids into a groundwater-saturated ore body. The uranium enriched groundwater (mining solution) is then brought to the surface through extraction wells. Approximately 1 to 3 percent more water is extracted from a uranium production well field than is injected. The purpose of this "bleed" is to prevent the escape of mining solution (excursions) by maintaining a hydraulic gradient toward the extraction wells.

The Kingsville Dome Mine is 13 km southeast of Kingsville, Texas. ISL mining began in 1988 and continued intermittently until 2009. The mine covers 864 ha and is divided into three production areas. This paper focuses on production area three (PA-3).

The bleed at PA-3 did not contain the increased pressures caused by injection of leaching fluids. A hydraulic gradient was rapidly established between the injection wells and the mine boundary, as shown by a rise in water levels in monitor wells surrounding PA-3. This gradient drove mining solution beyond the mine boundary. These excursions affected a well on the Garcia property, approximately 300 m down gradient of the mine. Since mining began, uranium concentrations in the Garcia well have increased from less than 200 µg/L, to more than 600 µg/L. This is the first time that contaminants in an off-site domestic well have been linked to ISL uranium mining in the United States of America.

In-situ leach uranium mining

In-situ leach (ISL) uranium mining differs from conventional mining in that it does not require excavation of ore. Instead, uranium is mobilized by injecting leaching fluids into a groundwater-saturated ore body (figure 1). The uranium-enriched groundwater (mining solution) is brought to the surface through extraction wells and routed to a processing plant where the uranium is removed. The uranium-depleted solution is then re-injected into the ore body. This cycle of injection and extraction continues as long as the ore body contains economically recoverable amounts of uranium.

Exhibit B

[redacted]

Table 5 Monitor Wells with Elevated Uranium Concentrations

Well ID	Background U concentration (µg/L)	U concentration during excursion (µg/L)	Date U detected
MW-74	21	3200	11/16/06
MW-89	22	1690	8/17/07
MW-90	24	1320	8/17/07
MW-90	24	1060	11/27/07
MW-91	31	2140	8/17/07
MW-91	31	1500	3/5/08
MW-92	36	1670	8/17/07
MW-92	36	1440	10/11/07
MW-92	36	1300	4/16/08
MW-93	37	2500	10/11/07
MW-98	59	1100	4/18/11
MW-100	30	3600	8/17/07
MW-101	53	2520	8/17/07
MW-102	20	1300	11/7/06
MW-102	20	5170	8/17/07
MW-103	16	2790	8/17/07
MW-104	36	2140	8/17/07
MW-105	31	2320	8/17/07
MW-106	32	3900	11/7/06
MW-106	32	1260	8/17/07
MW-118	101	1170	10/19/07

The uranium concentrations shown in table 5 would not be considered excursions by TCEQ. According to TCEQ, an excursion has not occurred unless uranium concentrations exceed 6540 µg/L (TCEQ 2006).

Figure 7 is a timeline showing the 21 uranium detections greater than 1000 µg/L. Four of the detections may be false positives because they are inconsistent with the history of mining at PA-3. Three of the four are from samples collected in November 2006, approximately two months before mining resumed. The fourth is from a sample collected in April 2011, almost two years after mining was suspended. There are other possible explanations for these four detections. The 2006 detections could be the result of pre-mining activities (e.g., testing of injection wells), or they could represent slow-moving, remnant solution from mining that occurred in 1998 and 1999. The 2011 detection could also be the result of slow-moving solution from earlier mining. At best, these four detections are suspect.

There are several reasons to believe that the other 17 uranium detections shown in figure 7 are not false positives. First, all of them occurred during mining. Second, all of them occurred after water levels in the monitor wells rose sharply in response to mining. This rise indicates that mining solution was being driven toward the monitor wells. Third, with one exception, the 17 detections are grouped in two clusters of wells: MW-89 – MW-93 and MW-100 – MW-106 (table 5 and figure 5). If the detections were false positives, one would expect them to be distributed

ATTAchment C

Field Sampling SOP

Kleberg County Project

By

Yaneth Gamboa & Waldy Fernandez

1. **Purging Procedure for Water Supply Wells (domestic or irrigation wells):**

Before the collection of groundwater samples the wells should be purge to remove stagnant water from the well casing (Harter, 2003). In order to determine the volume of water to be purge as well as the time require, it is necessary to know the inside diameter of the well, the height of the water column, and the pumping rate of the pump installed in each well.
It is important that the information be supplied in advance so that the time at which the well owners should turn on the pumps (before the arrival of the sampling crew) can be determined. At least a minimum of three (3) well volumes should be removed during the purging.

The following formulas will be used for the calculations (USGS, 2005):

$$V = 0.0408\ HD^2 \text{ (gallons)}$$

where:

V= Volume of water in the well (gallons)
D= Inside diameter of the well (inches)
H= Height of water column (feet)

Purge volume = n*V (gallons)

where:

n= number of well volumes to be removed during purging

Approximate purge time (min) = Purge volume / Q

where:

Q= estimated pumping rate (gallons/min)

2. **Standard Direct Field Measurement:**

The measurements of temperature, conductivity, pH, and dissolved oxygen (DO) will be performed in the field after allowing enough time for stabilization of the readings. The field sampling will be performed according to the following procedures:

1) Rinse both collection containers and the probes with water from the well.

2) Connect the faucet from the well to the sampling container.

3) Calculate the flow rate by determining the time needed to fill the sampling container.

4) While allowing the water to continually flow, introduce the YSI probe into the sampling container and shake it gently to remove any bubbles.

5) Turn on the meter and check the readings for dissolved oxygen, pH, conductivity and temperature.

6) Start to register the readings after allowing enough time for stabilization. To check stabilization the variability of the measurement should be within the following parameters (USGS, 2005):

    a. Temperature: ± 0.2 °C

    b. Conductivity: ± 5 percent

    c. pH: ± 0.1 unit

    d. Dissolved Oxygen: ± 0.3 mg/L

7) Register five (5) readings for each parameter.

8) Connect a flexible pipe from the sampling container to a bucket and allow the water to overflow the bucket.

9) Start the collection of samples for radon measurement.

3. Collection of Samples for Radon

The major source of error in measuring the radon content of water is the sampling technique. The water sample must be representative of the water being tested and should never be in contact with the atmosphere. The sampling should be performed following the steps below:

1) Since the concentration of radon is not known, two samples will be collected at each well using the following vials:
    a. A 250-mL vial for radon concentrations less than 3,000 pCi/L.
    b. A 40-mL vial for radon concentrations higher than 3,000 pCi/L.

2) Place the vial in the bottom of the bucket, and put the flexible pipe end into the vial. Let the water flow while flushing the vial with fresh water.
    a. Cap the vial while it is still under the water. Make sure that there are no bubbles in the vial and tighten the cap.

b. Remove the vial from the bucket, dry it and immediately apply a label stating the date, time and source of the water (RAD 7 Manual, 2009).

3) Set up the RAD 7 and associated sampling equipment as follows:
   a. Connect the drying system to the RAD 7:
      i. Connect the aeration system output to a small drying tube (with 25 cm of 5/16" tubing).
      ii. Connect the end of the drying tube (with 1/8" ID tubing) to an inlet filter mounted on the RAD 7 inlet. Clamp the small drying tube on the retort stand for supporting it vertically.
      iii. Connect the RAD 7 outlet (also with 1/8" ID tubing) to the check the valve on the aerator.
      iv. Turn on the RAD 7 and set it to purge for 15 min with the aeration system connected.
      v. Stop purging go to the Setup Protocol "Wat-40" or "Wat-250", depending on which size of vial is used, and push [ENTER].
      vi. Place the printer on the RAD 7 and switch it on. Switch off the RAD 7 and then switch it on again.
      vii. While the RAD 7 identifies the printer, reviews the setup and prints the header, insert the glass frit in the Teflon spacer.
      viii. Remove the cap from the water sample and lower the glass frit into the water. Some water should spill during the procedure.
      ix. Once the RAD 7 has finished printing out the header, go to "TEST START" and push [ENTER].

   b. The following time intervals are needed:
      i. 15 minutes for purging between sample collection.
      ii. 5 minutes for starting the method and 30 minutes for running the method.
   c. The RAD7 will show the average radon reading for four cycles.

4) Dump the water samples on the ground after the analyses are finished and put the vials in a plastic bag for cleaning after arrival at the laboratory.

5) Rinse the glass frit with DI water.

4. Oxidation Reduction Potential (ORP) Measurement

1) Rinse the probe to measure the ORP with water from the well.

2) Collect a water sample in a nalgene container and immediately insert the ORP probe.

3) Measure the ORP at least three (3) times.

4) Rinse the collection containers and the probes with DI water after the sample collection.

5. Collection of Water Samples for Analyses at the Laboratory

1) For the analysis of alkalinity, a water sample will be collected in a 1000-mL Nalgene bottle.

   a. Rinse the bottle at least three times with the water to be sampled.
   b. Place the Nalgene bottle in the bottom of the sampling container, insert the end of the flexible pipe into the bottle, and fill the bottle completely.
   c. Cap the bottle before taking it out the bucket to avoid any contact of the water with the atmosphere.
   d. Label the bottle with the following information:

      i. Date

      ii. Number of well

      iii. "alkalinity sample"

2) Samples for IC analyses (F^-, Cl^-, NO_2^{3-}, NO_3^{2-}, SO_4^{2-}, PO_4^{3-}) will be collected as follows:

   a. Reduce the water flow by closing a little the faucet.
   b. Connect the filter capsule to the end of the flexible pipe and allow water to flow to rinse the filter (filtration is performed using 0.45µ membrane filters).
   c. Collect three (3) water samples in 125 ml pre-cleaned certified Nalgene bottles.
      i. Fill bottle one completely and cap it immediately after collection.
      ii. Continue with the second and third bottle following the same procedure for bottle one.
   d. Label each bottle properly with the following information:

      i. Date

      ii. Number of well

      iii. Number of sample

3) Samples for ICP-MS analyses (U, Th, V, Se, Sr, As, K, Mo, Mn, Mg, Na, Ca, Fe) will be collected as follows:

   a. 250 µL of nitric acid will be added to pre-cleaned certified 125-mL Nalgene bottles in the laboratory the day before to the collection of the samples.

   b. Collect three (3) water samples as follows:

      i. Open a bottle carefully so the added nitric acid will not spill.

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ii. Fill the bottle completely.

iii. Cap the bottle immediately after sample collection.

iv. Repeat procedure two more times to collect a total of three replicate samples.

c. Label each bottle properly with the following information:

i. Date

ii. Number of well

iii. Number of sample

6. **Place samples in a cooler until delivered to the laboratory.**

7. **After arriving at the laboratory, place the bottles in the refrigerator at 4°C until analysis time.**

Attachment D

KVD Data Review - A Work in Progress

A Word On Estimated Uranium Ore Radiometric Grades

EPA, Region 6
Dallas, Texas

José Eduardo Torres
Petroleum Engineer
Chemical Engineer

A WORD (OR TWO) ON ESTIMATED URANIUM RADIOMETRIC ORE GRADES IN THE GARCIA HILL AREA, KLEBERG COUNTY, TX:

In the past, Kleberg County citizens have inquired with EPA about the amount of uranium ore in the Goliad Aquifer in the Garcia Hill area, following the high uranium concentrations observed in the Garcia Hill community's ground water supply (see Figure 1).

More specifically, in recent days, Ms. Elizabeth Cumberland asked whether EPA had been able to establish how the ore grade in the area compares to the cut-off grade value of 0.13% U3O8 that operator Strathmore established for its Roca Honda mining site (see Table I). Ms. Cumberland provided the Agency with numerous area well logs in the wake of a complaint filed by Mr. Teo Saenz, which prompted the GW/UIC Section to take a close look at the GR readings in those logs.

This work is an effort by the Section to satisfy the citizens' inquiries and, in particular, Ms. Cumberland's question on uranium ore grade, all part of the efforts towards addressing Mr. Saenz's complaint. The map in Figure 2 highlights the wells (see arrows) that were selected for analysis based primarily on their location relative to the Garcia Hill community, and to the impacted W-24 and W-25 wells.

Table II lists the highest ore grade values, as %U3O8, that were estimated for given points in the formation in the selected 11 area wells, while Figure 3 compares those "point ore grade values" to the "cut-off values" selected by operators Strathmore and URI: 0.13% and 0.11%, respectively. The available Uranium concentrations for the area's Goliad water shown in Table II, and in Figures 4 and 5, are generally near or below the EPA standard of 30 µg/L for dissolved Uranium. These baseline Uranium concentrations show that the water in an aquifer with naturally occurring very low grade Uranium ore can be suitable for human consumption, as long as it remains undisturbed.

The Uranium concentration shown in Table III for the City of Kingsville PWS EP004 well compares reasonably well with the above concentrations, suggesting that ore grades in the city may generally be in the range of those illustrated in Table II. Figure 6 compares the stratigraphic columns for Garcia Hill wells and one City of Kingsville PWS well, and is submitted as validation for the above water quality comparison for the two areas.

Details on how the Table II illustrated Uranium ore grade values were estimated are provided below.

Figure 1

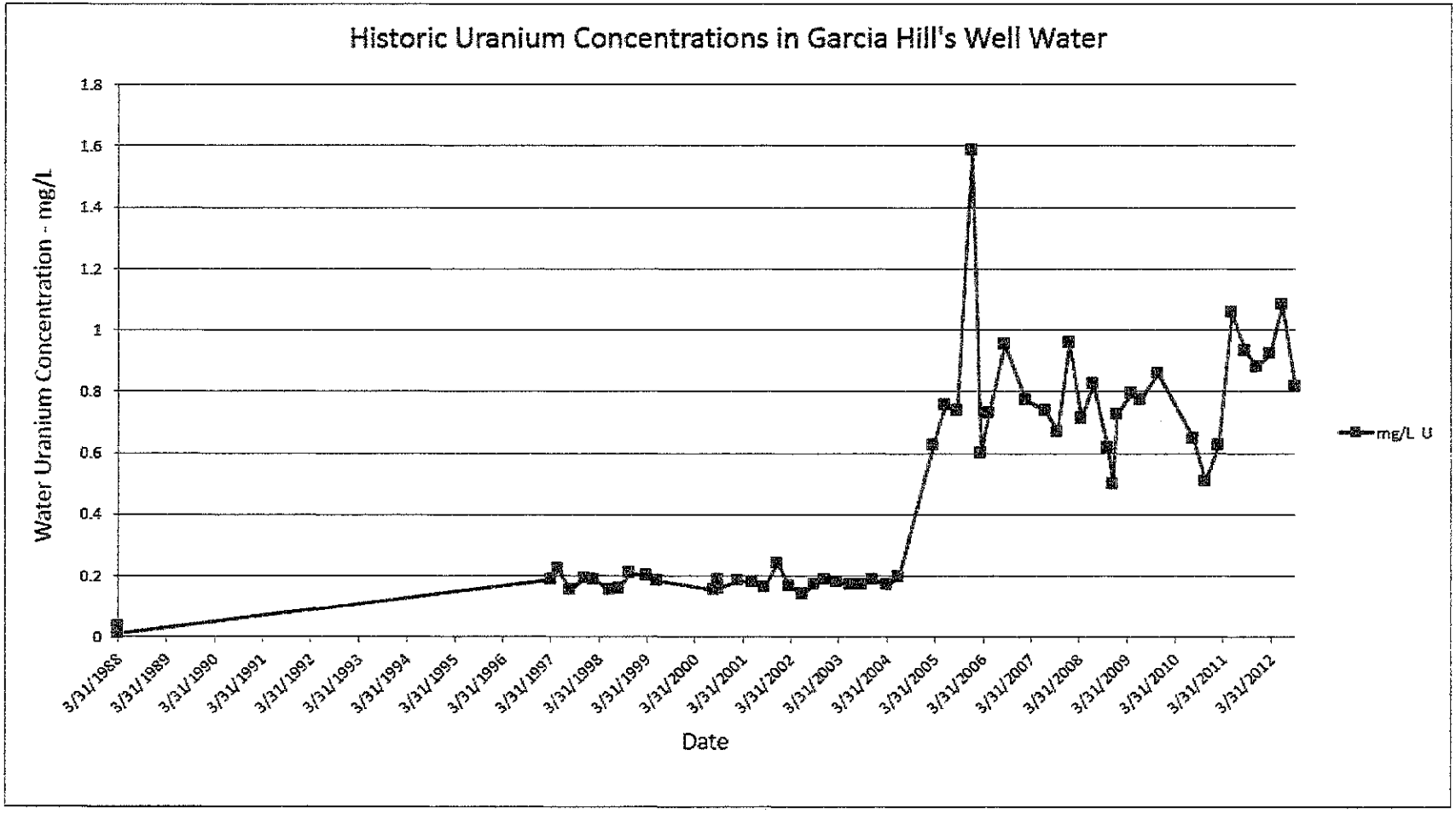

Historic Uranium Concentrations in Garcia Hill's Well Water
Water Uranium Concentration - mg/L
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
3/31/1988
3/31/1989
3/31/1990
3/31/1991
3/31/1992
3/31/1993
3/31/1994
3/31/1995
3/31/1996
3/31/1997
3/31/1998
3/31/1999
3/31/2000
3/31/2001
3/31/2002
3/31/2003
3/31/2004
3/31/2005
3/31/2006
3/31/2007
3/31/2008
3/31/2009
3/31/2010
3/31/2011
3/31/2012
Date
mg/L U

Table I

The economic evaluation of the Roca Honda uranium resource was prepared under the supervision of Stuart E. Collins of Roscoe Postle (USA) Ltd., Lakewood, Colorado. Mr. Collins is a Registered Professional Mining Engineer in the state of Colorado, and is a registered member of the Society for Mining and Metallurgy, and Exploration, and an independent and Qualified Person as defined in NI 43-101.

Summary of Roca Honda Mineral Resources as at August 9, 2011:
Measured and Indicated Resources:

Classification	Tons	Grade % U_3O_8	Lb U_3O_8
Measured	284,000	0.395	2,247,000
Indicated	1,793,000	0.405	14,536,000
Total M+I	**2,077,000**	**0.404**	**16,783,000**
Inferred Resource:			
Classification	**Tons**	**Grade % U_3O_8**	**Lb U_3O_8**
Inferred	1,448,000	0.411	11,894,000

Notes:

1. CIM definitions were followed for Mineral Resources.
2. The Qualified Person for this Mineral Resource estimate is Patti Nakai-Lajoie, P.Geo.
3. Mineral Resources are estimated using a cut-off grade of 0.13% U3O8. ←
4. A minimum mining thickness of six feet was used.
5. Numbers may not add due to rounding.

The modeling and estimation of the uranium resources were prepared under the supervision of Patti Nakai-Lajoie, P.Geo. and Principal Geologist, RPA. Ms. Nakai-Lajoie is a Professional Geoscientist in the Province of Ontario and an independent and Qualified Person as defined in NI 43-101. Ms. Nakai-Lajoie visited the Roca Honda Property on May 10-12, 2011 and is of the opinion that the data verification procedures support the geologic interpretations and confirm the quality of the database. It should be noted that mineral resources, which are not mineral reserves, do not have demonstrated economic viability.

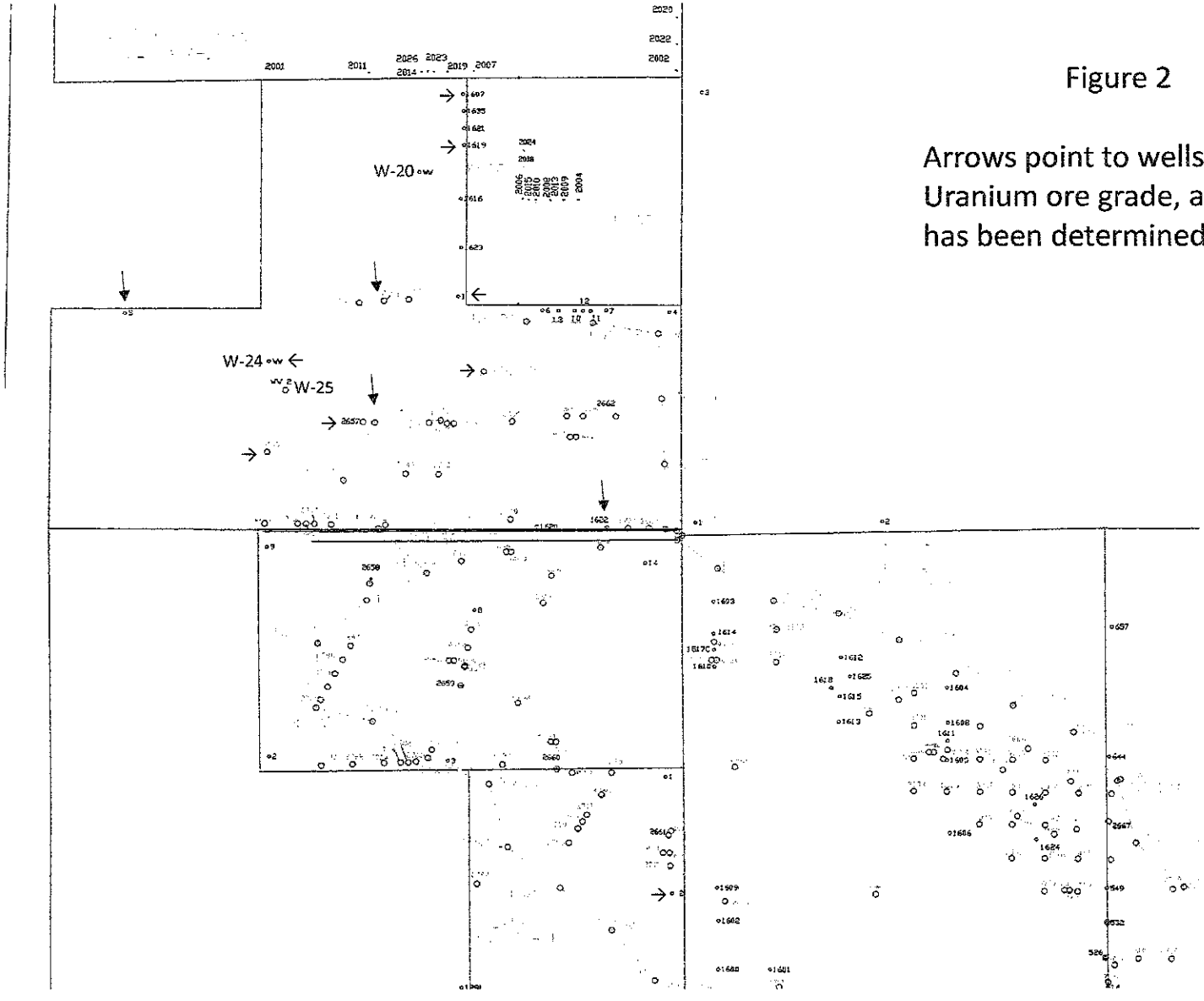


Figure 2

Arrows point to wells for which Uranium ore grade, as %U3O8, has been determined.

Table II.- Summary of Highest Uranium Ore Grade Values Estimated from GR Log Readings for the Selected Garcia Hill Area Wells

	GH W-24	Garcia 2699	Garcia 2657	MW-86	Garcia 2722	Garcia 5	Garcia 1	MW-84
Ft From GH W-24 (approx.)	0	547	681	739	787	915	1207	1302
"B" Sand Interval?	Yes 508 - 621	Yes 562 - 633	Yes 550 - 634	Yes 535 - 629	Yes 538 - 606	Yes 555 - 628	Yes 530 - 600	Yes 538 - 615
"B" Sand Highst. Ore Grade Read (%eU3O8)	0.0030 @ 575.0	0.0062 @ 573.5	Essentially Flat GR Curve	0.0025 @ 564.5	0.0281 @ 554.5	Essentially Flat GR Curve	0.0071 @ 554.0	0.0076 @ 577.0
"A" Sand Interval?	Yes 625 - 691	Yes 643 - 705	Yes 640 - 663	Yes 640 - 670	Yes 611 - 650	Yes 640 - 692	Yes 611 - 678	Yes 661 - 675
"A" Sand Highst. Ore Grade Read (%eU3O8)	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve
"AA" Sand Interval?	Yes 695 - 747	Yes 709 - 780	Yes 692 - 761	Yes 688 - 719	Yes 686 - 780	Yes 695 - 750	Yes 681 - 762	Yes 678 - 773
"AA" Sand Highst. Ore Grade Read (%eU3O8)	Essentially Flat GR Curve	0.0035 @737.5	0.0055 @ 746.5	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve	Essentially Flat GR Curve
Initial U mg/L	0.032 0.011	Drilled & Abandoned	Drilled & Abandoned	0.019	Drilled & Abandoned	Drilled & Abandoned	Drilled & Abandoned	0.031

	Expl G1607	Expl G1619	Expl G1622
Ft From GH W-20 (approx.)	550	335	2500
"B" Sand Highst. Ore Grade Read (%eU3O8)	0.0100 @ 553.5	0.0229 @ 572.0	0.1572 @ 585.5
"AA" Sand Highst. Ore Grade Read (%eU3O8)	0.0438 @ 729.0	0.0071 @ 726.0	
	Drilled & Abandoned	Drilled & Abandoned	PA-3 Producer 13222?

All Distances and Depths are approximate.

Figure 3

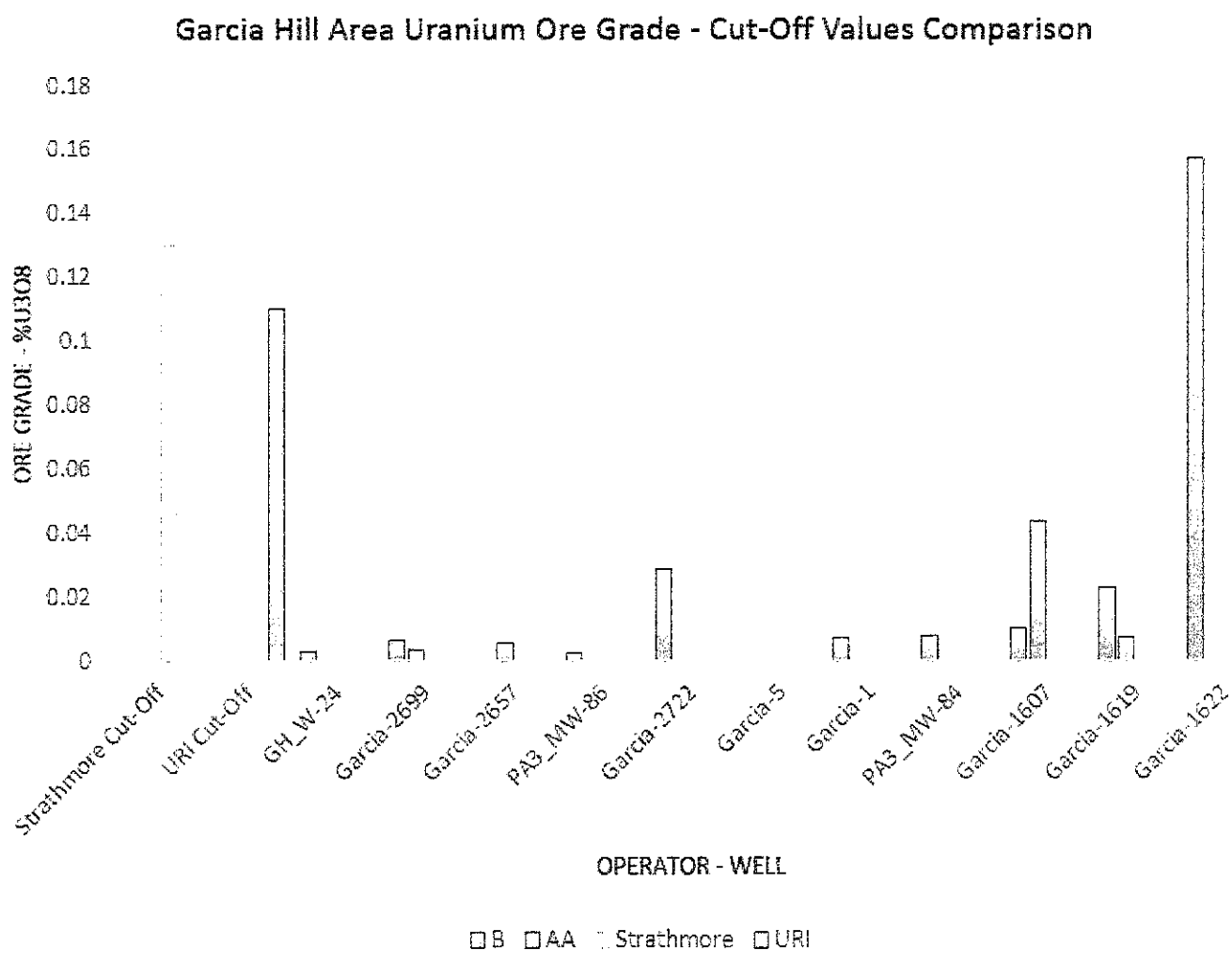

Garcia Hill Area Uranium Ore Grade - Cut-Off Values Comparison
ORE GRADE - %U3O8
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Strathmore Cut-Off
URI Cut-Off
GH_W-24
Garcia-2699
Garcia-2657
PA3_MW-86
Garcia-2722
Garcia-5
Garcia-1
PA3_MW-84
Garcia-1607
Garcia-1619
Garcia-1622
OPERATOR - WELL
B
AA
Strathmore
URI

Figure 4 Handwritten PA-3 Water Uranium Concentrations for North Monitoring Wells, Near Garcia Hill

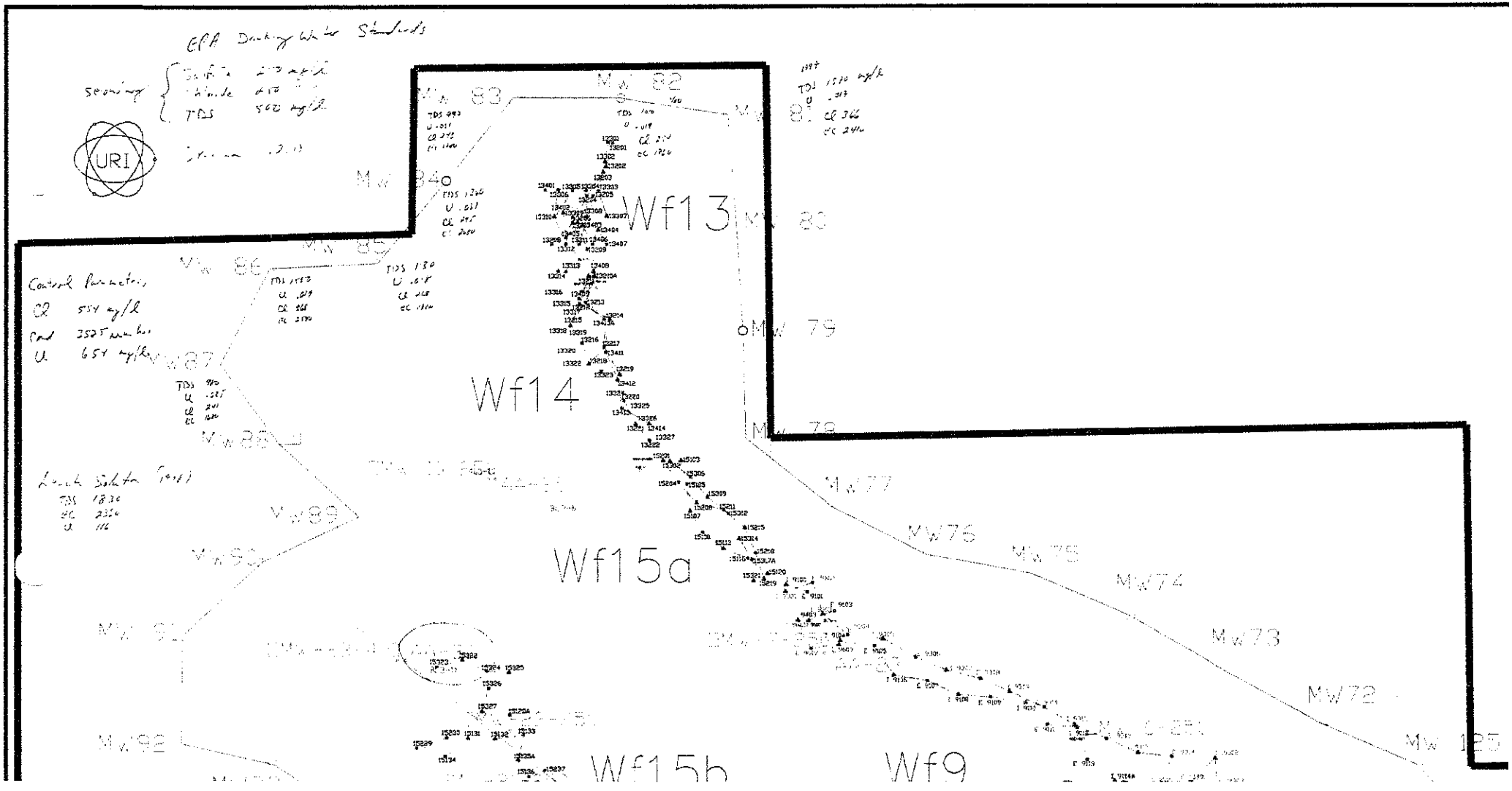
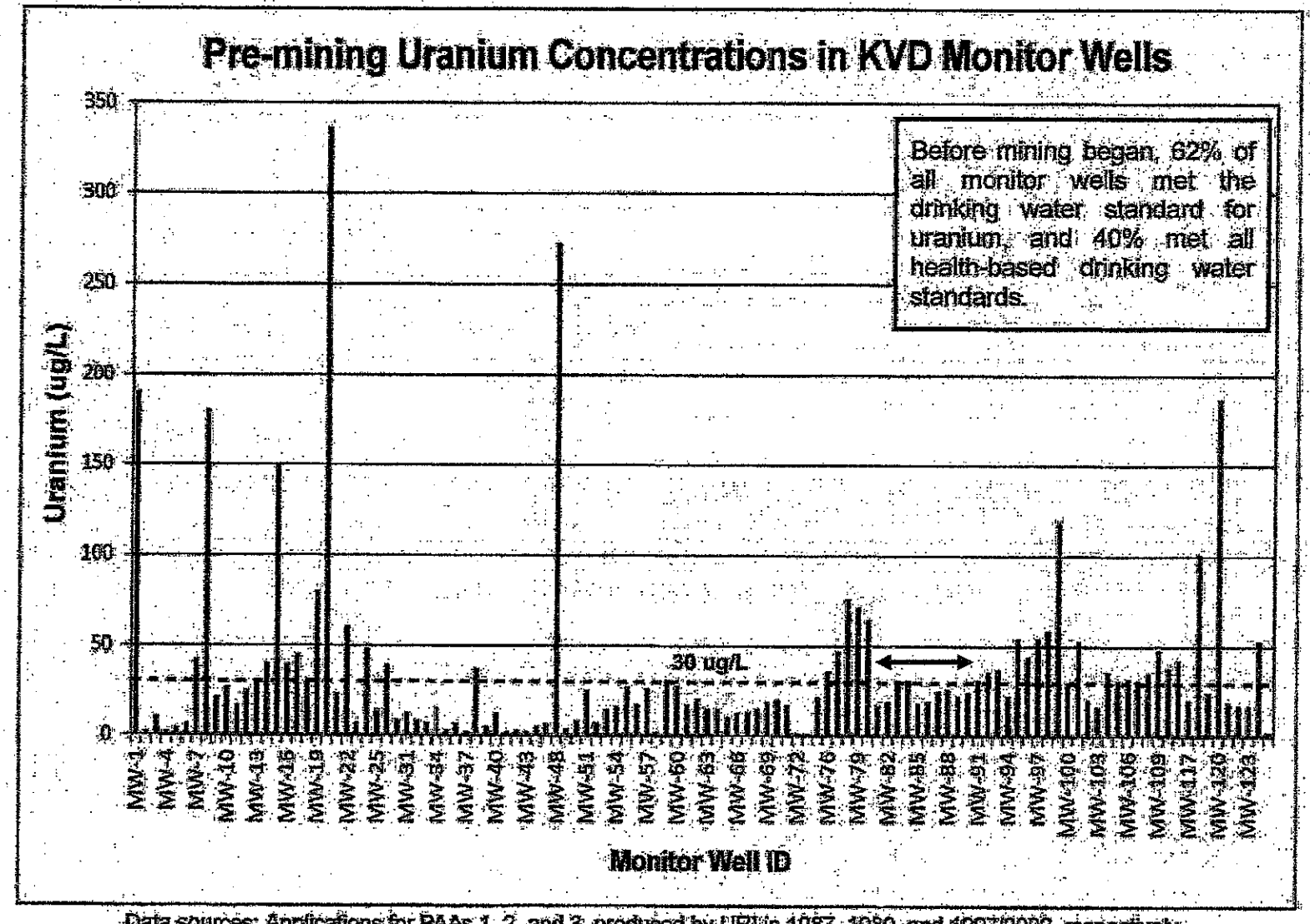


Figure 5

Uranium concentrations in water samples from the North Monitoring Wells (the closest to Garcia Hill and to this work's selected wells) stood at near or below the standard of 30 µg/L.



Data sources: Applications for PAAs 1, 2, and 3, produced by URI in 1987, 1989, and 1997/2002, respectively.

Table III

One Rare Analysis for Uranium for a City of Kingsville's Public Water Supply Well

Safe Drinking Water Information System (SDWIS)

Report generated on: 9/12/2012

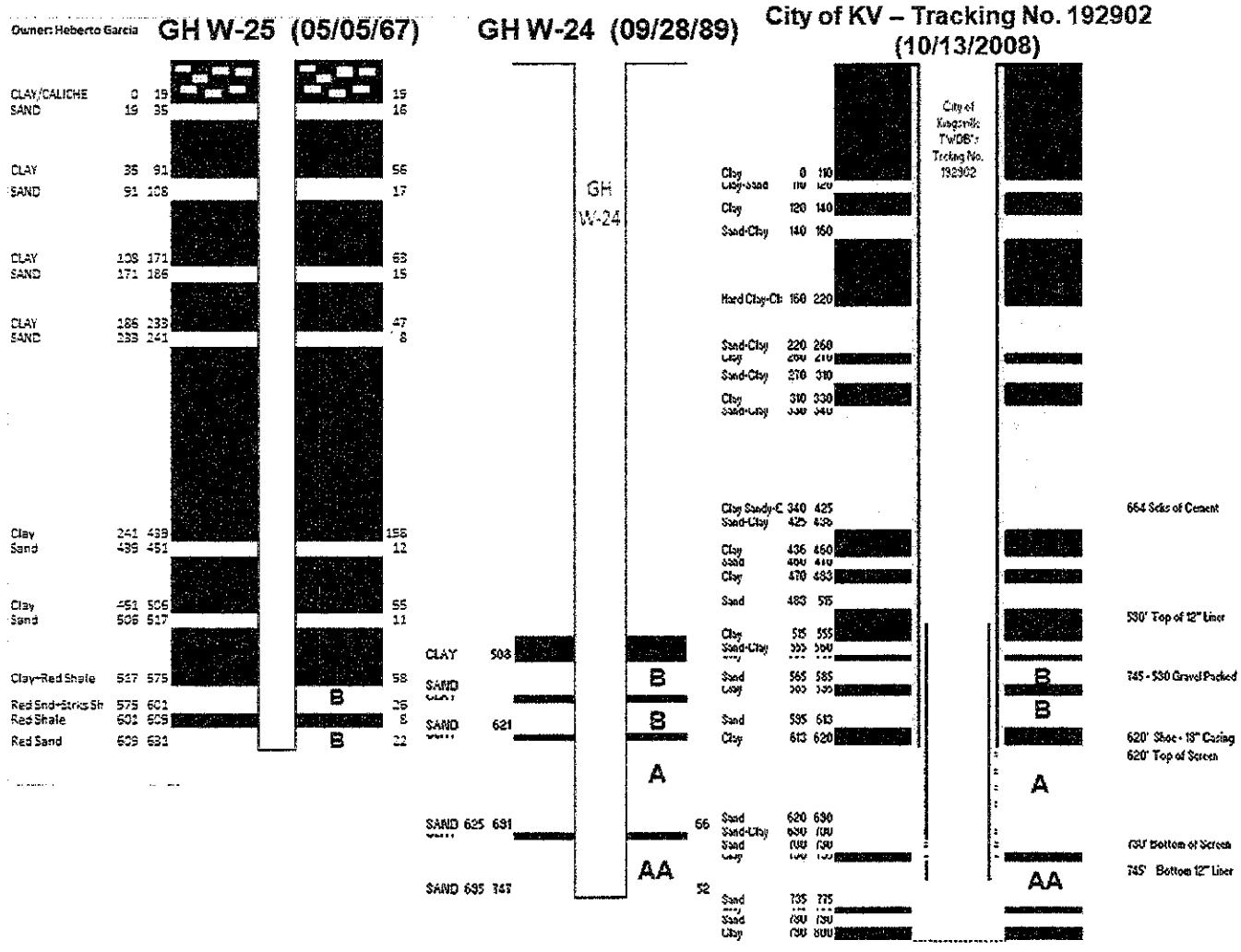
- Radionuclide Results Report: CITY OF KINGSVILLE PWSID TX1370001 for samples collected between 1/1/2000 and 9/12/2012

Report Description: Detailed Radionuclide result for a system by entry point and sample given a user defined date range and PWS ID.

CITY OF KINGSVILLE (TX1370001) - EP004 "GST" 1/1/2000 - 9/12/2012

TCEQ ID	LAB ID	TEST NAME	RESULT	UNIT OF ME	SAMPLE DATE	SYSTEM ID	CONT ID	POC 1
1153870	ABS4309	Gross Alpha, Incl. Radon & U	15.4	pCi/L	04/20/2011	1370001	4002	EP004
1153870	ABS4309	Gross Beta Particle Activity	7.4	pCi/L	04/20/2011	1370001	4100	EP004
1153870	ABS4309	Radium-226		Non-Detect	04/20/2011	1370001	4020	EP004
1153870	ABS4309	Radium-228		Non-Detect	04/20/2011	1370001	4030	EP004
1153870	ABS4309	Uranium-238 ←	2.7	pCi/L	04/20/2011	1370001	4009	EP004
1153870	ABS4309	Uranium-234 ←	6.5	pCi/L	04/20/2011	1370001	4007	EP004
1153870	ABS4309	Uranium-235 ←		Non-Detect	04/20/2011	1370001	4008	EP004
		Combined Uranium	**8.0**	**µg/L ←**				
		Gross Alpha, Excl. Radon & U	**10.0**	**pCi/L**				
		Combined Radium (-226 & -228)		**Non-Detect**				
0828826	AA51939	Gross Alpha, Incl. Radon & U	10.1	pCi/L	02/12/2008	1370001	4002	EP004
0828826	AA51939	Gross Beta Particle Activity	5.4	pCi/L	02/12/2008	1370001	4100	EP004
0828826	AA51939	Radium-226		Non-Detect	02/12/2008	1370001	4020	EP004
0828826	AA51939	Radium-228		Non-Detect	02/12/2008	1370001	4030	EP004
		Combined Radium (-226 & -228)		**Non-Detect**				
0525248	EP506258	Gross Beta Particle Activity	10.3	pCi/L	03/07/2005	1370001	4100	EP004
0525248	EP506258	Radium-226		Non-Detect	03/07/2005	1370001	4020	EP004
0525248	EP506258	Radium-228		Non-Detect	03/07/2005	1370001	4030	EP004
0525248	EP506258	Gross Alpha Particle Activity	11.9	pCi/L	03/07/2005	1370001	4109	EP004
	EP204782	Gross Beta Particle Activity	9.2	pCi/L	03/12/2002	1370001	4100	EP004
	EP204782	Radium-226		Non-Detect	03/12/2002	1370001	4020	EP004
	EP204782	Radium-228		Non-Detect	03/12/2002	1370001	4030	EP004
	EP204782	Gross Alpha Particle Activity	12.2	pCi/L	03/12/2002	1370001	4109	EP004

Figure 6 Stratigraphic Column/Completion Comparison for Garcia Hill W-24, W-25 and City of Kingsville PWS No. 7 Well



THE COMPUTATIONAL MODEL USED FOR ESTIMATING URANIUM ORE GRADE AS %U3O8

A SAMPLE COMPUTATION OF URANIUM ORE GRADE, USING THE BACKGROUND TO BACKGROUND METHOD, HAS BEEN IMPLEMENTED, AND THE RESULTS HAVE BEEN COMPARED AGAINST THE AVAILABLE RESULTS FROM ANOTHER COMMERCIAL COMPUTER PROGRAM FOR VALIDATION OF THE PROCEDURE USED IN THIS WORK. DETAILS ON THESE COMPUTATIONS ARE PRESENTED BELOW.

The numerical results for an assay by COMPUTER LOGGING INCORPORATED for the KVD area Adami No. 2 Well were faithfully duplicated by the computer routine used in this work, as can be seen in Tables IV and V. The curve in Figure 7 is the graphic representation of the digitized GR data, which was used as input.

The same computational scheme was used for all of the other assays, which were completed for the 11 selected KVD area wells. The map in Figure 1 identifies these wells and illustrates their location. These wells' GR Logs were digitized by taking readings every six inches across the selected depth interval, and tabulating them. The tabulated readings were later put in a graph for comparison with the recorded log curve as a quality assurance exercise.

Tables VI through XVIII show the input GR readings and the computed %U3O8 values. These results are for eligible "B" and "AA" Sands intervals when present in the selected wells. Figures 8 through 33 illustrate the recorded GR and digitized curves. Alternating with these curves are graphic comparisons of the %U3O8 values, computed across the selected depth interval, against the set cut-off ore grade values for mining, one of the main objectives of this work.

Comparison of the highest ore grade readings against the set cut-off values for mining was illustrated at the beginning of this discussion (Figure 3) to call attention to the natural correlation between very low Uranium ore grade and drinkable water.

Table IV

COMPUTER LOGGING INCORPORATED

URANIUM DATA ANALYSIS

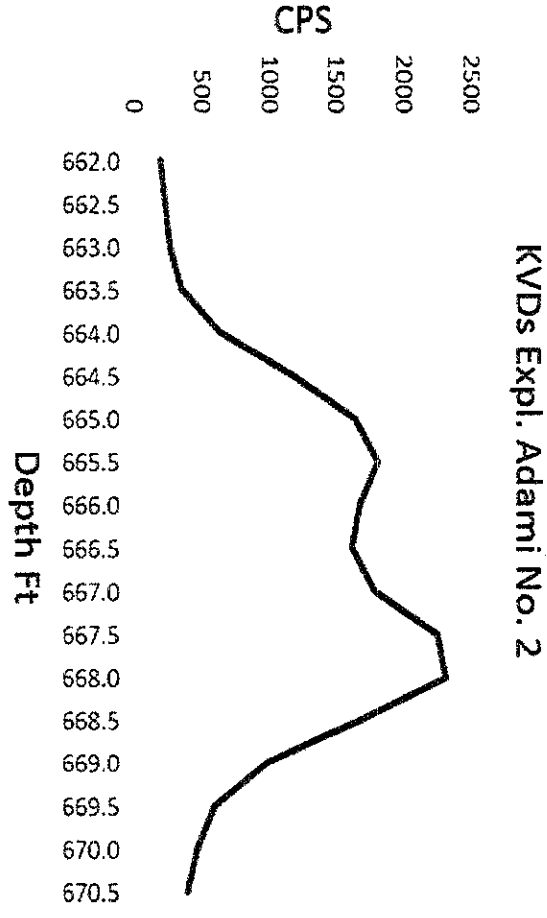
CLIENT: U.R.I.
HOLE NO: ADAMI#2
DATE: 12-07-87

K-FACTOR= .00000630 DEADTIME (MICROSEC.)= .00000025
CORRECTION FACTOR= 1.150

DEPTH (FT)	RAW CPS	CORRECTED CPS	GRADE %U3O8	CUT #1 .020	CUT #2 .050	CUT #3 .080	CUT #4 .100	%U3O8 HOLE SIZE AND WATER CORR. GRADE
662.0	194.	194.	.003					0.0028
662.5	223.	223.	.003					0.0033
663.0	266.	266.	.004					0.0039
663.5	353.	353.	.005					0.0052
664.0	638.	638.	.009					0.0093
664.5	1170.	1171.	.017					0.0171
665.0	1649.	1650.	.024	.024				0.0242
665.5	1809.	1810.	.026	.026				0.0265
666.0	1686.	1686.	.024	.024				0.0247
666.5	1618.	1619.	.023	.023				0.0237
667.0	1789.	1790.	.026	.026				0.0262
667.5	2255.	2257.	.033	.033				0.0330
668.0	2321.	2322.	.034	.034				0.0340
668.5	1692.	1692.	.025	.025				0.0248
669.0	999.	999.	.014					0.0146
669.5	603.	604.	.009					0.0088
670.0	467.	467.	.007					0.0068
670.5	397.	397.	.006					0.0058

CUTOFF NUMBER 1
NUMBER OF HALF-FOOT INTERVALS: 8
AVERAGE GRADE= .027
GRADE-THICKNESS PRODUCT= . .107

Figure 7



KVD's Exploratory Adami No. 2 Well - Digitized GR Curve - From Table I

Table V

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method (Continues)

Given Data
Data Entered by Logger
Calculated Data

DATE:	
WELL NAME:	Adami No. 2
LOGGING ENGINEER:	
UNIT No.:	
PROBE No.:	
INTERVAL: Ft	0.5
BIT SIZE: in Inches	5.125
WATER IN HOLE? (Y/N)	y
WATER CORRECTION:	1.14861875
STEEL PIPE IN HOLE? (Y/N)	n
THICKNESS: in Inches	1
STEEL CORRECTION:	1
DEAD TIME:	2.50000E-07
K FACTOR:	6.30000E-06

GRADE= **0.01714317** %eU308

GRADE-THICKNESS= **0.14571697**

Interval Of Interest: 662.00 to 670.50

KVD's PA-3 Adami No. 2

ORE GRADE AND GRADE-THICKNESS CALCULATION (Concluded)
Background to Background Method

KVD's PA-3 Adami No. 2

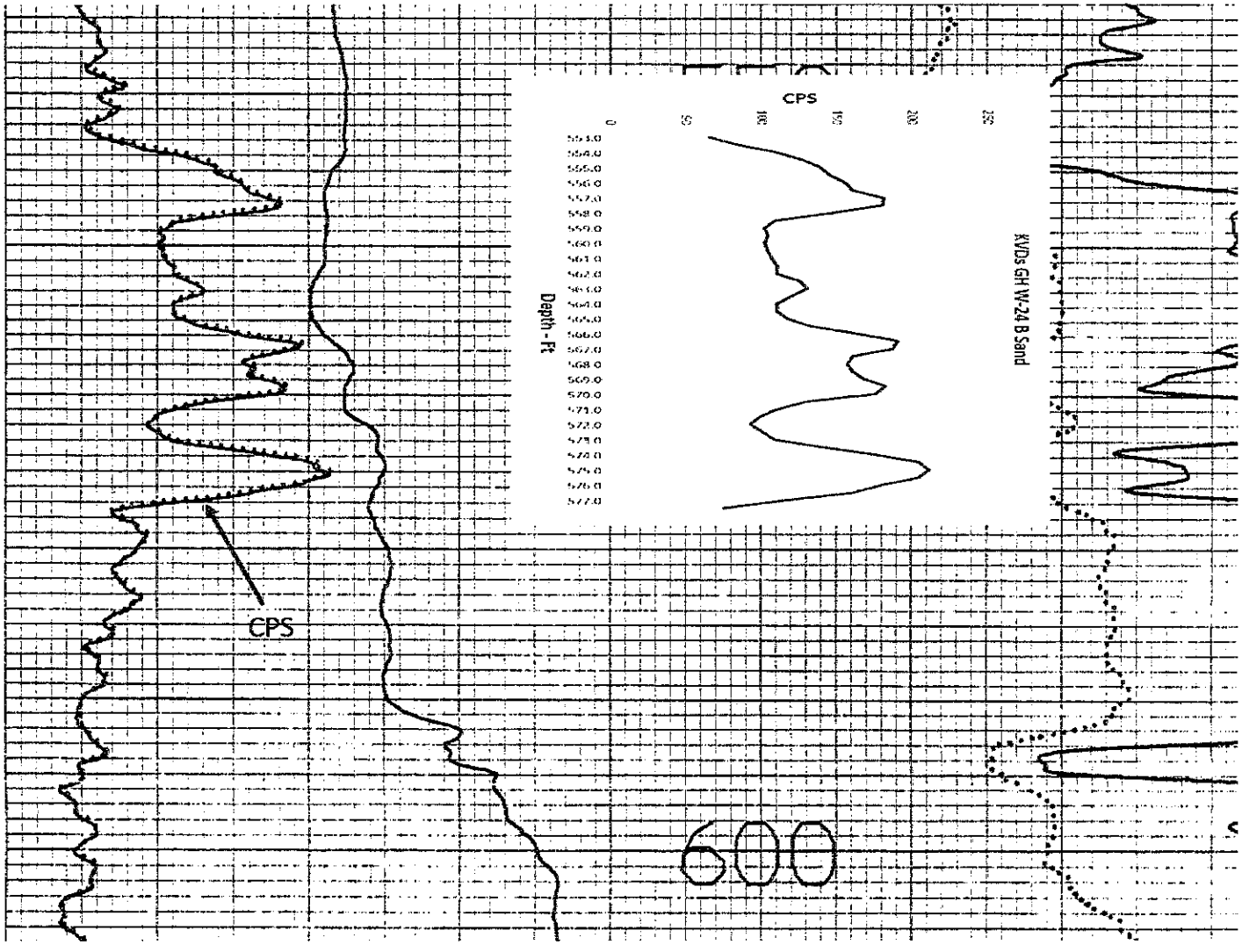
Table V

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%eU3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
662.00	194.00	194.01	0.0024	0.0028	0.0028
662.50	223.00	223.01	0.0028	0.0033	0.0033
663.00	266.00	266.02	0.0034	0.0039	0.0039
663.50	353.00	353.03	0.0044	0.0052	0.0052
664.00	638.00	638.10	0.0080	0.0093	0.0093
664.50	1170.00	1170.34	0.0147	0.0171	0.0171
665.00	1649.00	1649.68	0.0208	0.0242	0.0242
665.50	1809.00	1809.82	0.0228	0.0265	0.0265
666.00	1686.00	1686.71	0.0213	0.0247	0.0247
666.50	1618.00	1618.65	0.0204	0.0237	0.0237
667.00	1789.00	1789.80	0.0226	0.0262	0.0262
667.50	2255.00	2256.27	0.0284	0.0330	0.0330
668.00	2321.00	2322.35	0.0293	0.0340	0.0340
668.50	1692.00	1692.72	0.0213	0.0248	0.0248
669.00	999.00	999.25	0.0126	0.0146	0.0146
669.50	603.00	603.09	0.0076	0.0088	0.0088
670.00	467.00	467.05	0.0059	0.0068	0.0068
670.50	397.00	397.04	0.0050	0.0058	0.0058

The Assay for the Garcia Hill W-24 Water Supply Well, initially identified as 1989 Exploratory Well Garcia 1627, is shown in Figures 8 and 9, and in Table VI.

Figure 9 illustrates the contrast between the estimated ore grade values across the "B" Sand in the W-24 well and the 0.11 %U3O8 and 0.13 %U3O8 curves, set as the cut-off values for mining.

Figure 8



KVDs GH W-24 - "B" Sand - GR Log - Recorded & Digitized Curves Comparison

Table VI
(Continues)

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Garcia Hill W-24 - B Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
553.00	65.00	65.00	0.0008	0.0009	0.0009
553.50	85.00	85.00	0.0010	0.0012	0.0012
554.00	110.00	110.00	0.0014	0.0016	0.0016
554.50	128.00	128.00	0.0016	0.0018	0.0018
555.00	139.00	139.00	0.0017	0.0020	0.0020
555.50	145.00	145.01	0.0018	0.0021	0.0021
556.00	156.00	156.01	0.0019	0.0022	0.0022
556.50	160.00	160.01	0.0020	0.0023	0.0023
557.00	181.00	181.01	0.0022	0.0026	0.0026
557.50	180.00	180.01	0.0022	0.0026	0.0026
558.00	145.00	145.01	0.0018	0.0021	0.0021
558.50	109.00	109.00	0.0013	0.0016	0.0016
559.00	102.00	102.00	0.0013	0.0015	0.0015
559.50	104.00	104.00	0.0013	0.0015	0.0015
560.00	102.00	102.00	0.0013	0.0015	0.0015
560.50	104.00	104.00	0.0013	0.0015	0.0015
561.00	107.00	107.00	0.0013	0.0015	0.0015
561.50	110.00	110.00	0.0014	0.0016	0.0016
562.00	110.00	110.00	0.0014	0.0016	0.0016
562.50	125.00	125.00	0.0015	0.0018	0.0018
563.00	130.00	130.00	0.0016	0.0019	0.0019
563.50	120.00	120.00	0.0015	0.0017	0.0017
564.00	110.00	110.00	0.0014	0.0016	0.0016
564.50	110.00	110.00	0.0014	0.0016	0.0016
565.00	117.00	117.00	0.0014	0.0017	0.0017

Table VI
(Concluded)

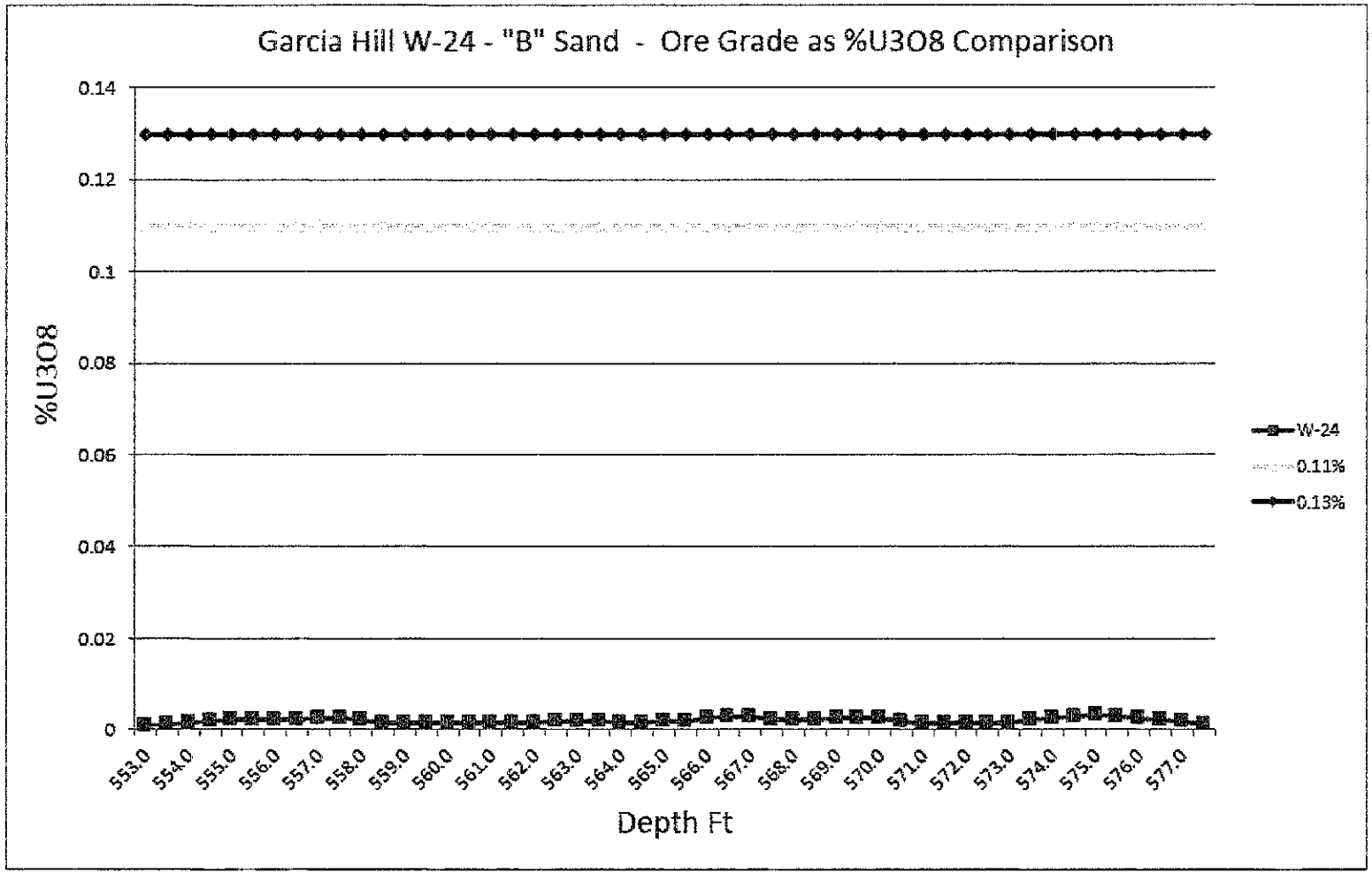
ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs W-24 - "B" Sand

565.00	117.00	117.00	0.0014	0.0017	0.0017
565.50	132.00	132.00	0.0016	0.0019	0.0019
566.00	164.00	164.01	0.0020	0.0024	0.0024
566.50	190.00	190.01	0.0023	0.0027	0.0027
567.00	187.00	187.01	0.0023	0.0027	0.0027
567.50	160.00	160.01	0.0020	0.0023	0.0023
568.00	157.00	157.01	0.0019	0.0023	0.0023
568.50	160.00	160.01	0.0020	0.0023	0.0023
569.00	168.00	168.01	0.0021	0.0024	0.0024
569.50	182.00	182.01	0.0022	0.0026	0.0026
570.00	175.00	175.01	0.0022	0.0025	0.0025
570.50	130.00	130.00	0.0016	0.0019	0.0019
571.00	110.00	110.00	0.0014	0.0016	0.0016
571.50	99.00	99.00	0.0012	0.0014	0.0014
572.00	93.00	93.00	0.0011	0.0013	0.0013
572.50	100.00	100.00	0.0012	0.0014	0.0014
573.00	109.00	109.00	0.0013	0.0016	0.0016
573.50	140.00	140.00	0.0017	0.0020	0.0020
574.00	175.00	175.01	0.0022	0.0025	0.0025
574.50	204.00	204.01	0.0025	0.0029	0.0029
575.00	211.00	211.01	0.0026	0.0030	0.0030
575.50	204.00	204.01	0.0025	0.0029	0.0029
576.00	180.00	180.01	0.0022	0.0026	0.0026
576.50	160.00	160.01	0.0020	0.0023	0.0023
577.00	115.00	115.00	0.0014	0.0017	0.0017
577.50	75.00	75.00	0.0009	0.0011	0.0011

AREA 6834.25
577.50 DEPTH MAX
553.00 DEPTH MIN

Figure 9


Garcia Hill W-24 - "B" Sand - Ore Grade as %U3O8 Comparison
%U3O8
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
553.0
554.0
555.0
556.0
557.0
558.0
559.0
560.0
561.0
562.0
563.0
564.0
565.0
566.0
567.0
568.0
569.0
570.0
571.0
572.0
573.0
574.0
575.0
576.0
577.0
Depth Ft
W-24
0.11%
0.13%

The Assay for the Exploratory Garcia 2699 Well, “B” Sand, is shown in Figures 10 and 11, and in Table VII.

Figure 11 illustrates the spread between the estimated ore grade values across the “B” Sand in the Garcia 2699 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

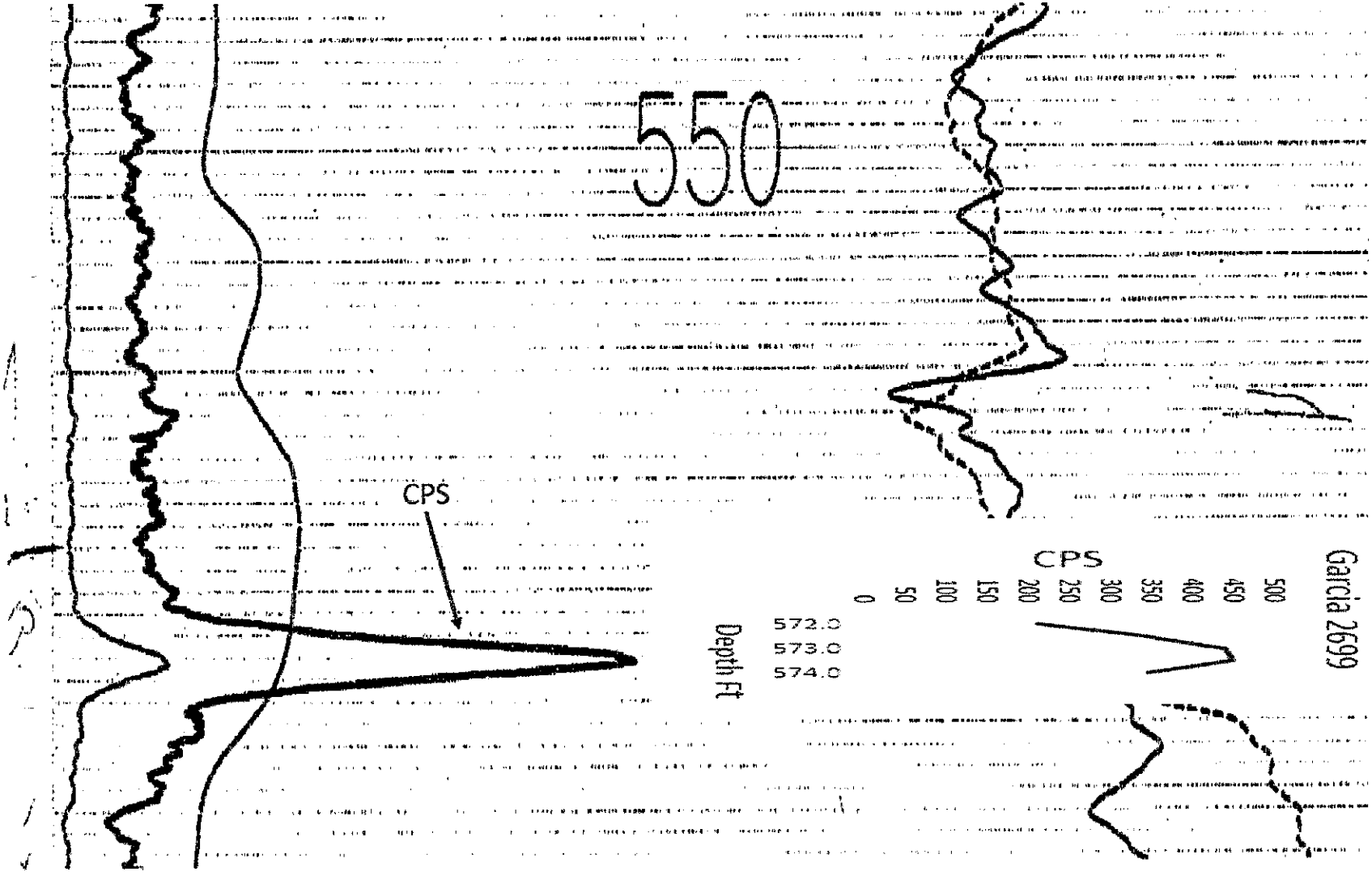


Figure 10

KVD's Exploratory Garcia 2699 – "B" Sand – Recorded & Digitized Curves Comparison

Table VII

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

Given Data
Data Entered by Logger
Calculated Data

DATE:	12/27/1996
WELL NAME:	Garcia 2699
LOGGING ENGINEER:	
UNIT No.:	
PROBE No.:	
INTERVAL: Ft	0.5
BIT SIZE: in Inches	6.750
WATER IN HOLE? (Y/N)	y
WATER CORRECTION:	1.2080125
STEEL PIPE IN HOLE? (Y/N)	n
THICKNESS: in Inches	1
STEEL CORRECTION:	1
DEAD TIME:	2.30000E-07
K FACTOR:	5.73000E-06

KVDs Expl. Garcia 2699

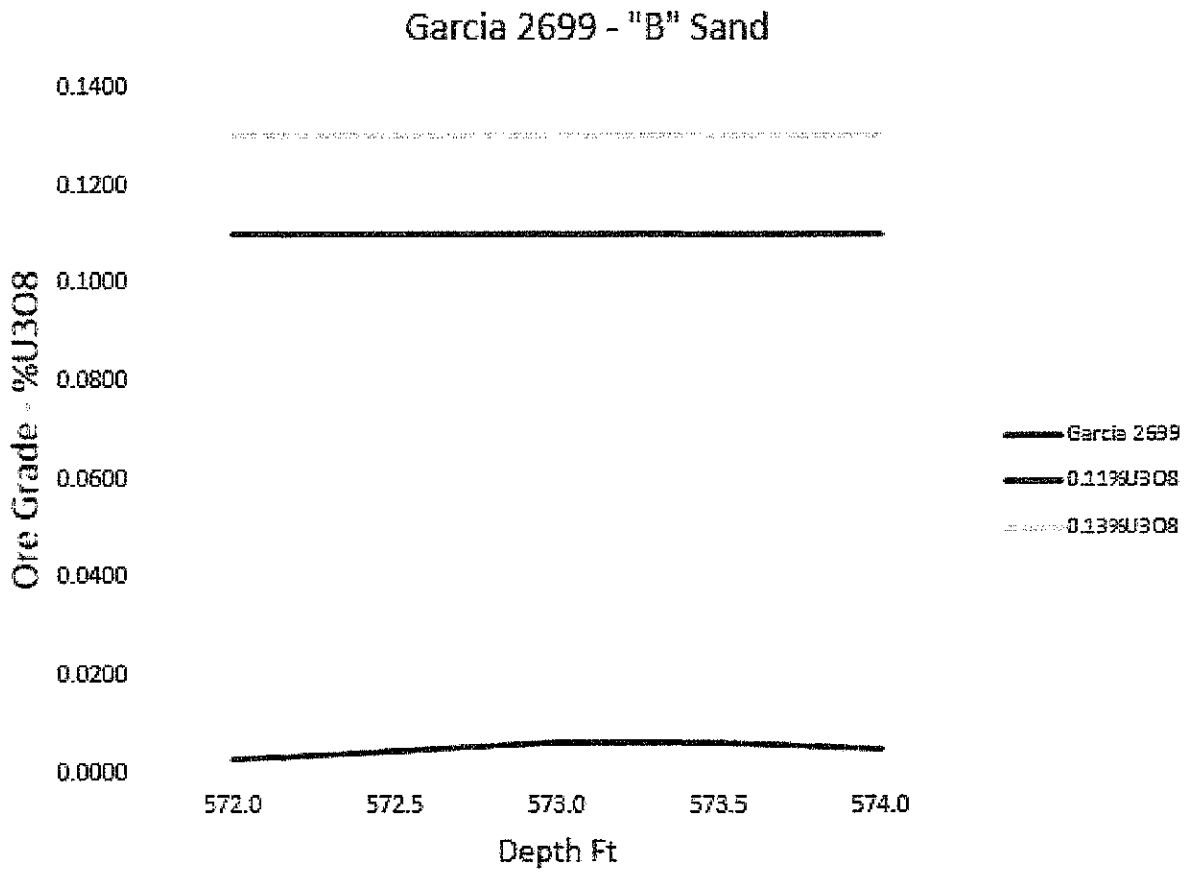
GRADE= **0.0062130** %eU3O8

GRADE-THICKNESS= **0.0124259**

Interval Of Interest: 572.00 to 574.00

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR.	STEEL CASING CORRECTION
572.00	215.00	215.01	0.0025	0.0030	0.0030
572.50	340.00	340.03	0.0039	0.0047	0.0047
573.00	442.00	442.04	0.0051	0.0061	0.0061
573.50	450.00	450.05	0.0052	0.0062	0.0062
574.00	348.00	348.03	0.0040	0.0048	0.0048

Figure 11

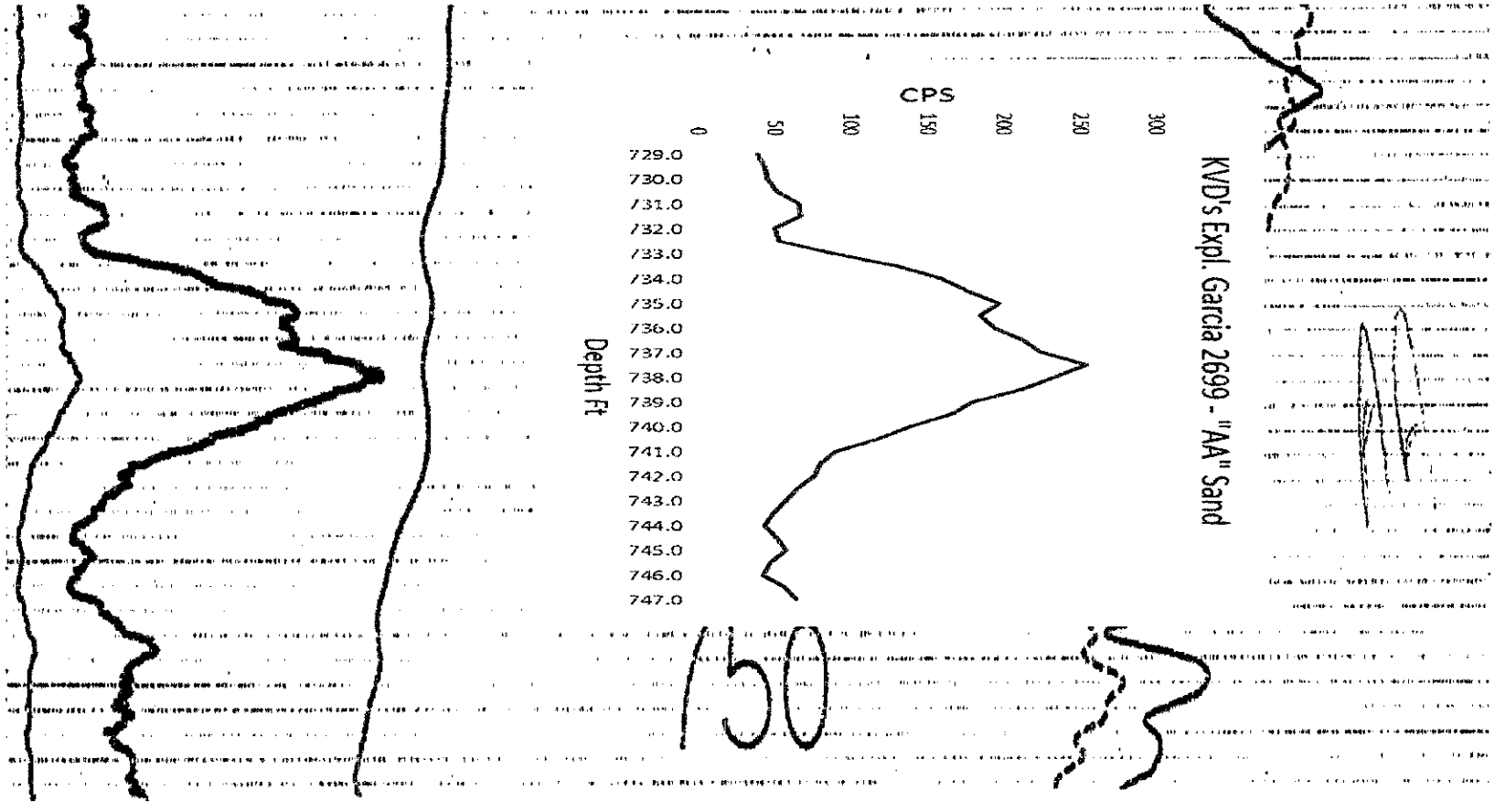


Ore Grade as %U3O8 Comparison

The Assay for the Exploratory Garcia 2699 Well, “AA” Sand, is shown in Figures 12 and 13, and in Table VIII.

Figure 13 illustrates the spread between the estimated ore grade values across the “AA” Sand in the Garcia 2699 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

Figure 12



KVD's Expl. Garcia 2699 – "AA" Sand – GR Recorded & Digitized Curves Comparison

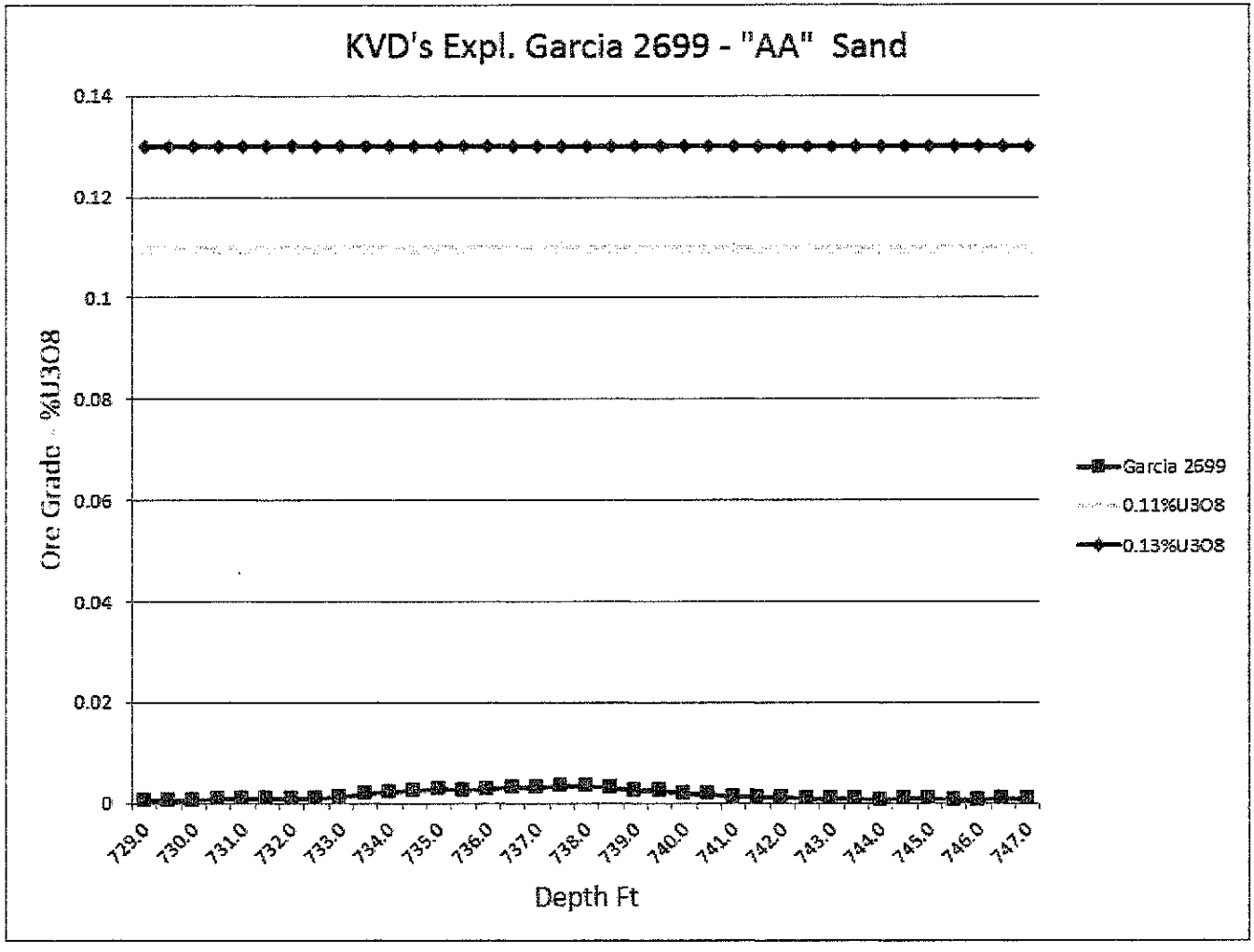
Table VIII

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Garcia 2699 - AA Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
729.00	39.00	39.00	0.0004	0.0005	0.0005
729.50	44.00	44.00	0.0005	0.0006	0.0006
730.00	46.00	46.00	0.0005	0.0006	0.0006
730.50	51.00	51.00	0.0006	0.0007	0.0007
731.00	66.00	66.00	0.0008	0.0009	0.0009
731.50	67.00	67.00	0.0008	0.0009	0.0009
732.00	50.00	50.00	0.0006	0.0007	0.0007
732.50	53.00	53.00	0.0006	0.0007	0.0007
733.00	88.00	88.00	0.0010	0.0012	0.0012
733.50	131.00	131.00	0.0015	0.0018	0.0018
734.00	159.00	159.01	0.0018	0.0022	0.0022
734.50	175.00	175.01	0.0020	0.0024	0.0024
735.00	197.00	197.01	0.0023	0.0027	0.0027
735.50	185.00	185.01	0.0021	0.0026	0.0026
736.00	194.00	194.01	0.0022	0.0027	0.0027
736.50	213.00	213.01	0.0024	0.0029	0.0029
737.00	224.00	224.01	0.0026	0.0031	0.0031
737.50	254.00	254.01	0.0029	0.0035	0.0035
738.00	233.00	233.01	0.0027	0.0032	0.0032
738.50	211.00	211.01	0.0024	0.0029	0.0029
739.00	179.00	179.01	0.0021	0.0025	0.0025
739.50	167.00	167.01	0.0019	0.0023	0.0023
740.00	139.00	139.00	0.0016	0.0019	0.0019
740.50	118.00	118.00	0.0014	0.0016	0.0016
741.00	90.00	90.00	0.0010	0.0012	0.0012
741.50	80.00	80.00	0.0009	0.0011	0.0011
742.00	76.00	76.00	0.0009	0.0011	0.0011
742.50	65.00	65.00	0.0007	0.0009	0.0009
743.00	58.00	58.00	0.0007	0.0008	0.0008
743.50	49.00	49.00	0.0006	0.0007	0.0007
744.00	44.00	44.00	0.0005	0.0006	0.0006
744.50	51.00	51.00	0.0006	0.0007	0.0007
745.00	58.00	58.00	0.0007	0.0008	0.0008
745.50	47.00	47.00	0.0005	0.0007	0.0007
746.00	43.00	43.00	0.0005	0.0006	0.0006
746.50	57.00	57.00	0.0007	0.0008	0.0008
747.00	64.00	64.00	0.0007	0.0009	0.0009

Figure 13

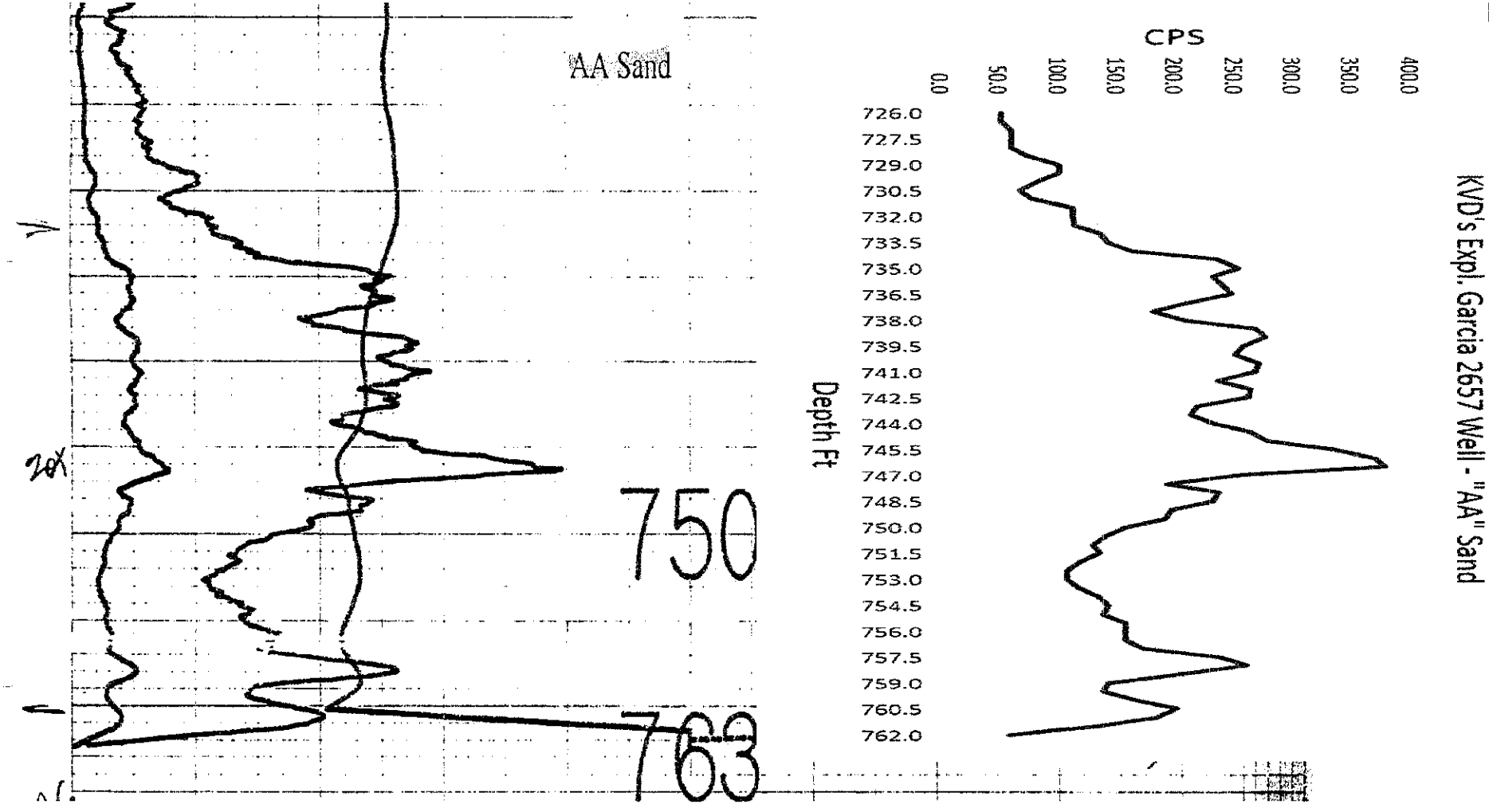


Ore Grade as %U3O8 Comparison

The Assay for the Exploratory Garcia 2657 Well, "AA" Sand, is shown in Figures 14 and 15, and in Table IX.

Figure 15 illustrates the spread between the estimated ore grade values across the "AA" Sand in the Garcia 2657 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

Figure 14



KVD's Expl. Garcia 2657 – "AA" Sand – Recorded & Digitized GR Curves Comparison

Table IX
(Continues)

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Garcia 2647 - AA Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
726.00	53.00	53.00	0.0007	0.0008	0.0008
726.50	54.00	54.00	0.0007	0.0008	0.0008
727.00	62.00	62.00	0.0008	0.0009	0.0009
727.50	62.00	62.00	0.0008	0.0009	0.0009
728.00	62.00	62.00	0.0008	0.0009	0.0009
728.50	75.00	75.00	0.0009	0.0011	0.0011
729.00	102.00	102.00	0.0013	0.0015	0.0015
729.50	102.00	102.00	0.0013	0.0015	0.0015
730.00	85.00	85.00	0.0010	0.0012	0.0012
730.50	70.00	70.00	0.0009	0.0010	0.0010
731.00	80.00	80.00	0.0010	0.0012	0.0012
731.50	115.00	115.00	0.0014	0.0017	0.0017
732.00	115.00	115.00	0.0014	0.0017	0.0017
732.50	116.00	116.00	0.0014	0.0017	0.0017
733.00	138.00	138.00	0.0017	0.0020	0.0020
733.50	145.00	145.01	0.0018	0.0021	0.0021
734.00	165.00	165.01	0.0020	0.0024	0.0024
734.50	237.00	237.01	0.0029	0.0034	0.0034
735.00	255.00	255.02	0.0031	0.0037	0.0037
735.50	233.00	233.01	0.0029	0.0034	0.0034
736.00	243.00	243.01	0.0030	0.0035	0.0035
736.50	250.00	250.02	0.0031	0.0036	0.0036
737.00	212.00	212.01	0.0026	0.0031	0.0031
737.50	183.00	183.01	0.0023	0.0026	0.0026
738.00	210.00	210.01	0.0026	0.0030	0.0030
738.50	270.00	270.02	0.0033	0.0039	0.0039
739.00	278.00	278.02	0.0034	0.0040	0.0040
739.50	260.00	260.02	0.0032	0.0037	0.0037
740.00	253.00	253.02	0.0031	0.0036	0.0036
740.50	273.00	273.02	0.0034	0.0039	0.0039
741.00	270.00	270.02	0.0033	0.0039	0.0039
741.50	238.00	238.01	0.0029	0.0034	0.0034
742.00	265.00	265.02	0.0033	0.0038	0.0038
742.50	264.00	264.02	0.0033	0.0038	0.0038
743.00	220.00	220.01	0.0027	0.0032	0.0032
743.50	215.00	215.01	0.0027	0.0031	0.0031
744.00	235.00	235.01	0.0029	0.0034	0.0034

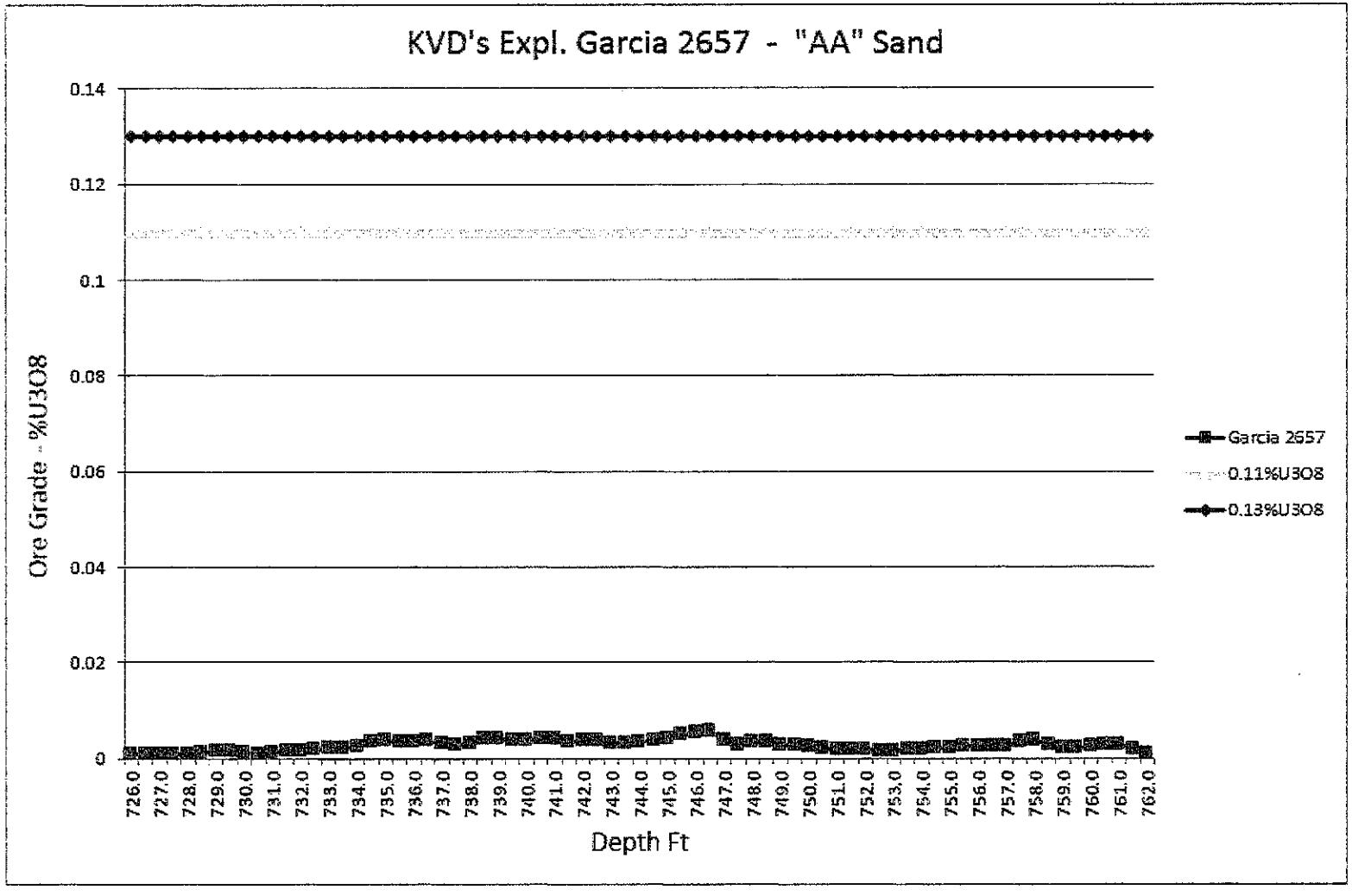
Table IX
(Concluded)

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVD's Expl. Garcia 2657

744.00	235.00	235.01	0.0029	0.0034	0.0034
744.50	265.00	265.02	0.0033	0.0038	0.0038
745.00	280.00	280.02	0.0035	0.0040	0.0040
745.50	335.00	335.03	0.0041	0.0048	0.0048
746.00	372.00	372.03	0.0046	0.0054	0.0054
746.50	380.00	380.04	0.0047	0.0055	0.0055
747.00	260.00	260.02	0.0032	0.0037	0.0037
747.50	195.00	195.01	0.0024	0.0028	0.0028
748.00	240.00	240.01	0.0030	0.0035	0.0035
748.50	234.00	234.01	0.0029	0.0034	0.0034
749.00	198.00	198.01	0.0024	0.0029	0.0029
749.50	193.00	193.01	0.0024	0.0028	0.0028
750.00	160.00	160.01	0.0020	0.0023	0.0023
750.50	142.00	142.01	0.0018	0.0020	0.0020
751.00	132.00	132.00	0.0016	0.0019	0.0019
751.50	137.00	137.00	0.0017	0.0020	0.0020
752.00	120.00	120.00	0.0015	0.0017	0.0017
752.50	110.00	110.00	0.0014	0.0016	0.0016
753.00	110.00	110.00	0.0014	0.0016	0.0016
753.50	120.00	120.00	0.0015	0.0017	0.0017
754.00	137.00	137.00	0.0017	0.0020	0.0020
754.50	145.00	145.01	0.0018	0.0021	0.0021
755.00	140.00	140.00	0.0017	0.0020	0.0020
755.50	160.00	160.01	0.0020	0.0023	0.0023
756.00	160.00	160.01	0.0020	0.0023	0.0023
756.50	160.00	160.01	0.0020	0.0023	0.0023
757.00	175.00	175.01	0.0022	0.0025	0.0025
757.50	240.00	240.01	0.0030	0.0035	0.0035
758.00	262.00	262.02	0.0032	0.0038	0.0038
758.50	200.00	200.01	0.0025	0.0029	0.0029
759.00	145.00	145.01	0.0018	0.0021	0.0021
759.50	140.00	140.00	0.0017	0.0020	0.0020
760.00	170.00	170.01	0.0021	0.0024	0.0024
760.50	203.00	203.01	0.0025	0.0029	0.0029
761.00	185.00	185.01	0.0023	0.0027	0.0027
761.50	135.00	135.00	0.0017	0.0019	0.0019
762.00	60.00	60.00	0.0007	0.0009	0.0009

Figure 15

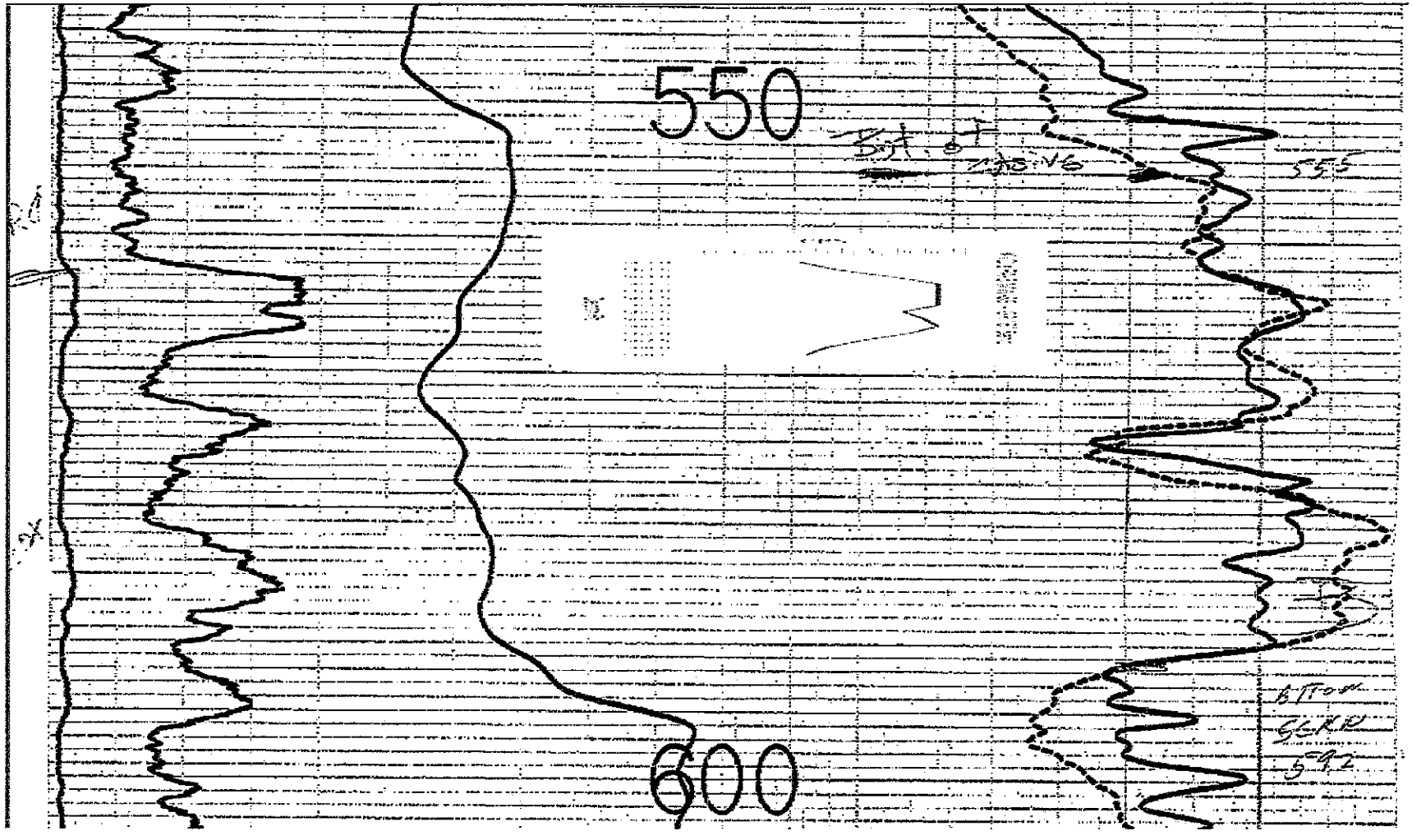


Ore Grade as %U3O8 Comparison

The Assay for KVD's PA-3 MW-86, "B" Sand, is shown in Figures 16 and 17, and in Table X.

Figure 17 illustrates the spread between the estimated ore grade values across the "B" Sand in the MW-86 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

Figure 16



KVD's PA-3 MW86 – "B" Sand – GR Recorded & Digitized Curves Comparison

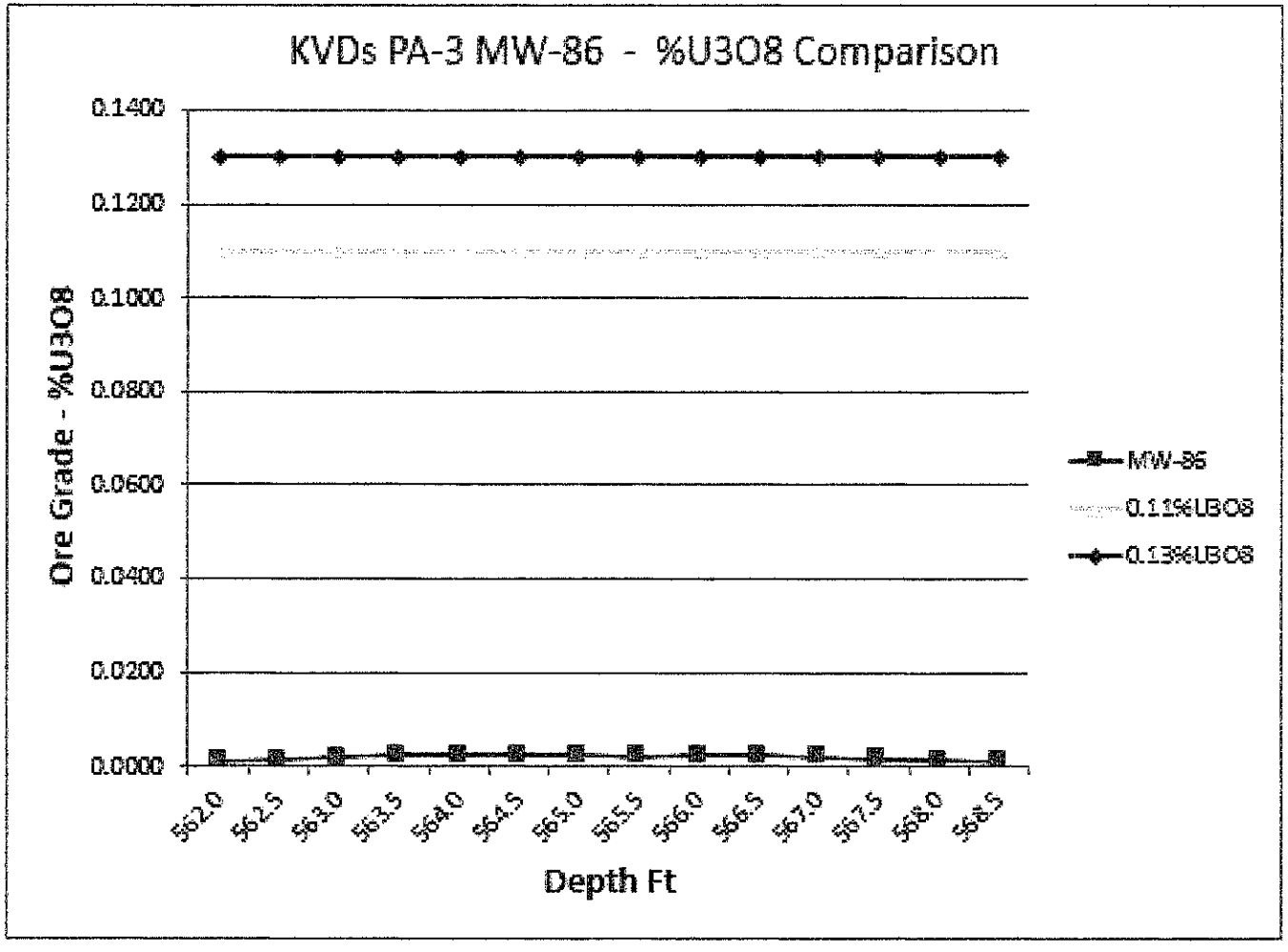
Table X

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs PA-3 MW-86

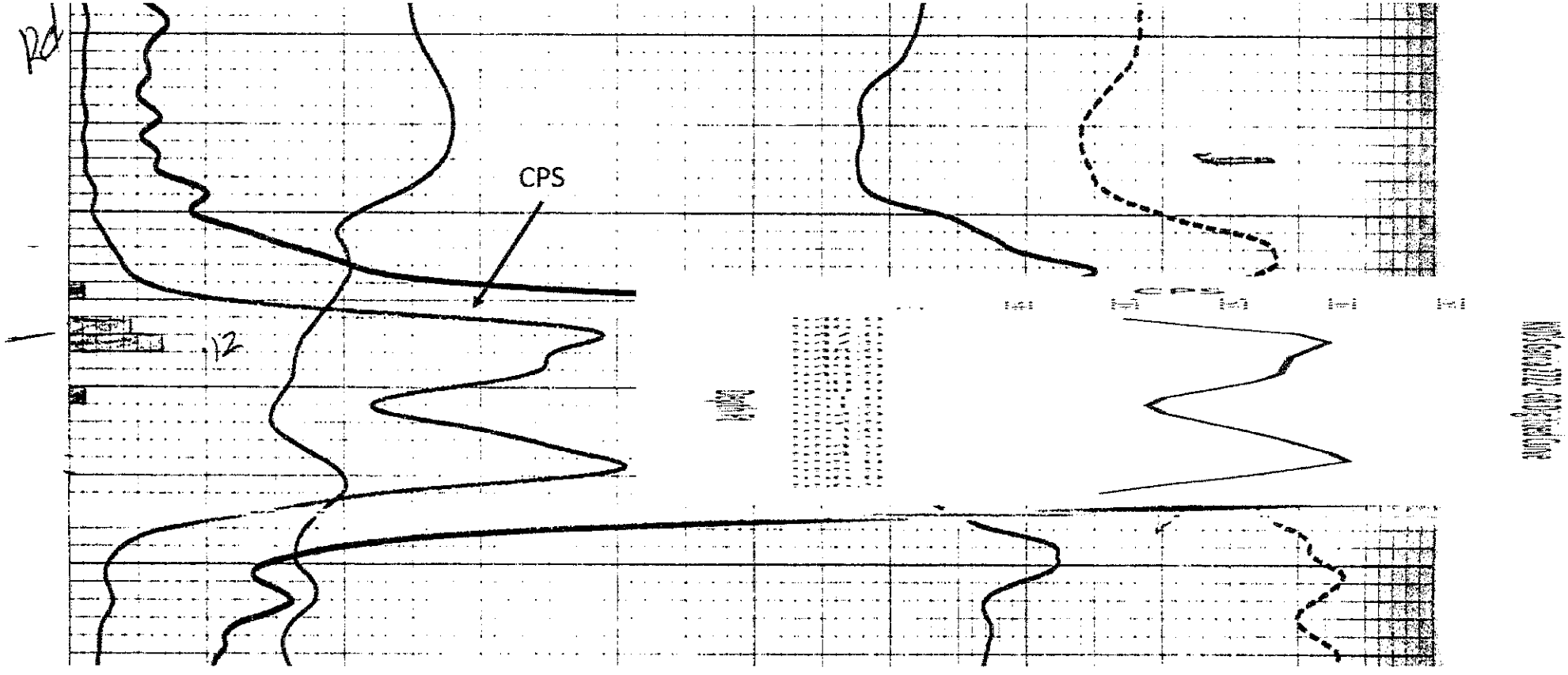
DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
562.00	85.00	85.00	0.0010	0.0011	0.0011
562.50	110.00	110.00	0.0013	0.0015	0.0015
563.00	150.00	150.01	0.0017	0.0020	0.0020
563.50	185.00	185.01	0.0021	0.0025	0.0025
564.00	185.00	185.01	0.0021	0.0025	0.0025
564.50	185.00	185.01	0.0021	0.0025	0.0025
565.00	185.00	185.01	0.0021	0.0025	0.0025
565.50	160.00	160.01	0.0018	0.0021	0.0021
566.00	175.00	175.01	0.0020	0.0023	0.0023
566.50	185.00	185.01	0.0021	0.0025	0.0025
567.00	165.00	165.01	0.0019	0.0022	0.0022
567.50	130.00	130.00	0.0015	0.00174	0.0017
568.00	105.00	105.00	0.0012	0.0014	0.0014
568.50	90.00	90.00	0.0010	0.0012	0.0012

Figure 17


KVDs PA-3 MW-86 - %U3O8 Comparison
0.1400
0.1200
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
Ore Grade - %U3O8
562.0
562.5
563.0
563.5
564.0
564.5
565.0
565.5
566.0
566.5
567.0
567.5
568.0
568.5
Depth Ft
MW-86
0.11%U3O8
0.13%U3O8

The Assay for KVD's Exploratory Garcia 2722, "B" Sand, is shown in Figures 18 and 19, and in Table XI.

Figure 19 illustrates the spread between the estimated ore grade values across the "B" Sand in the Garcia 2722 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.



KVD's Exploratory Garcia 2722 Well - "B" Sand – GR Recorded & Digitized Curves Comparison

Figure 18

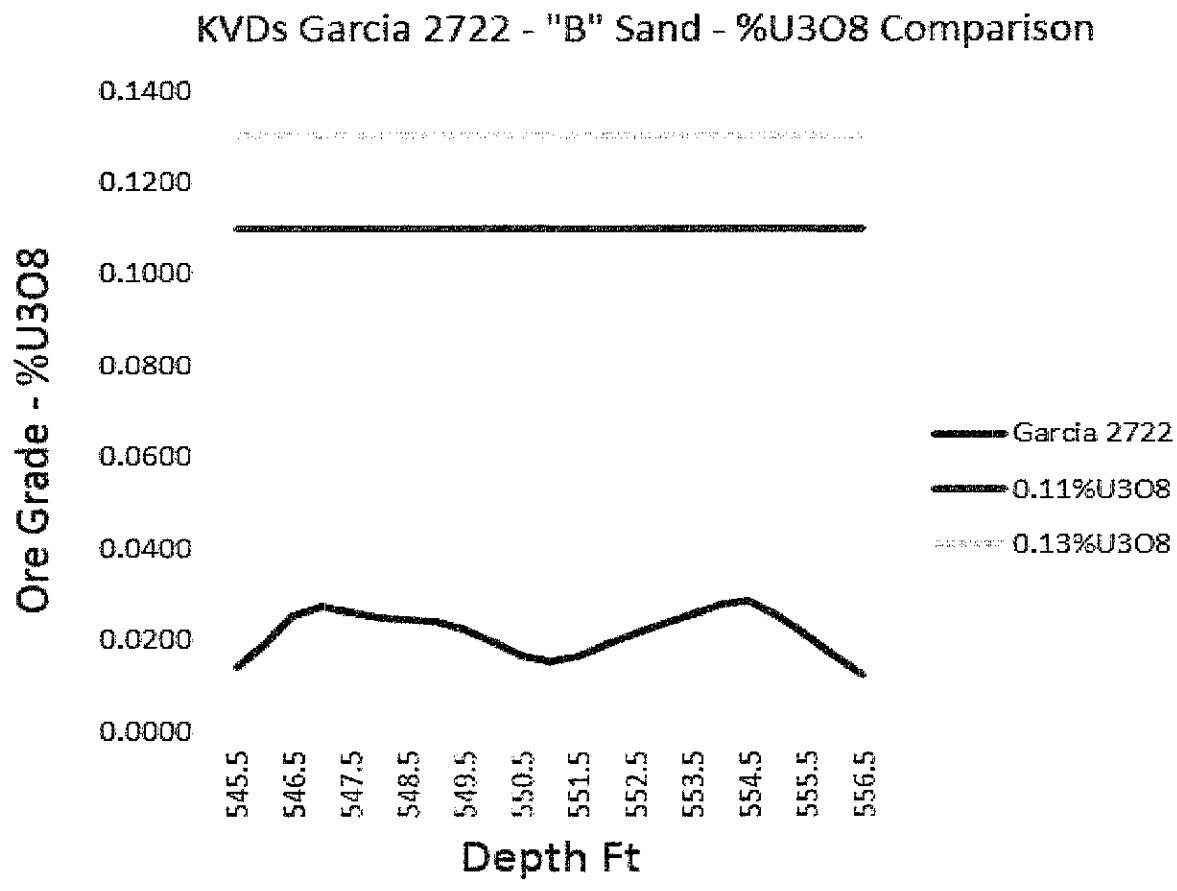
Table XI

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Garcia 2722 - B Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
545.50	1003.33	1003.58	0.0121	0.0141	0.0141
546.00	1353.33	1353.78	0.0163	0.0190	0.0190
546.50	1796.67	1797.46	0.0216	0.0253	0.0253
547.00	1943.33	1944.26	0.0234	0.0273	0.0273
547.50	1856.67	1857.51	0.0224	0.0261	0.0261
548.00	1763.33	1764.10	0.0212	0.0248	0.0248
548.50	1743.33	1744.08	0.0210	0.0245	0.0245
549.00	1716.67	1717.39	0.0207	0.0241	0.0241
549.50	1606.67	1607.30	0.0194	0.0226	0.0226
550.00	1393.33	1393.81	0.0168	0.0196	0.0196
550.50	1190.00	1190.35	0.0143	0.0167	0.0167
551.00	1106.67	1106.97	0.0133	0.0156	0.0156
551.50	1190.00	1190.35	0.0143	0.0167	0.0167
552.00	1353.33	1353.78	0.0163	0.0190	0.0190
552.50	1536.67	1537.25	0.0185	0.0216	0.0216
553.00	1690.00	1690.70	0.0204	0.0238	0.0238
553.50	1823.33	1824.15	0.0220	0.0256	0.0256
554.00	1960.00	1960.94	0.0236	0.0276	0.0276
554.50	2033.33	2034.35	0.0245	0.0286	0.0286
555.00	1803.33	1804.13	0.0217	0.0253	0.0253
555.50	1506.67	1507.22	0.0181	0.0212	0.0212
556.00	1180.00	1180.34	0.0142	0.0166	0.0166
556.50	900.00	900.20	0.0108	0.0126	0.0126

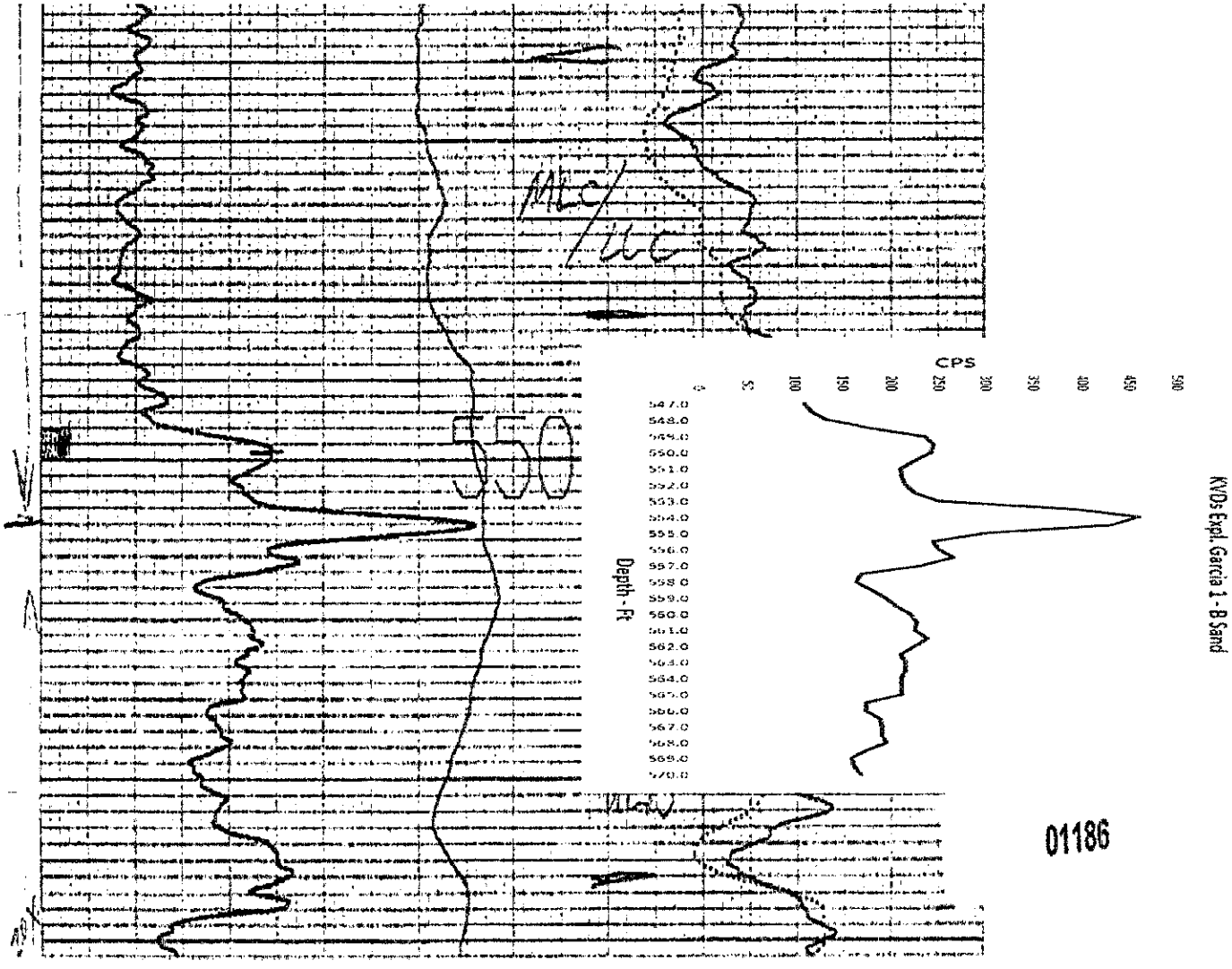
Figure 19


KVDs Garcia 2722 - "B" Sand - %U3O8 Comparison
0.1400
0.1200
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
Ore Grade - %U3O8
545.5
546.5
547.5
548.5
549.5
550.5
551.5
552.5
553.5
554.5
555.5
556.5
Depth Ft
Garcia 2722
0.11%U3O8
0.13%U3O8

The Assay for KVD's Exploratory Garcia 1, "B" Sand, is shown in Figures 20 and 21, and in Table XII.

Figure 21 illustrates the spread between the estimated ore grade values across the "B" Sand in the Garcia 1 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

Figure 20



KVD's ExplG1 – "B" Sand - GR Log - Recorded & Digitized Curves Comparison

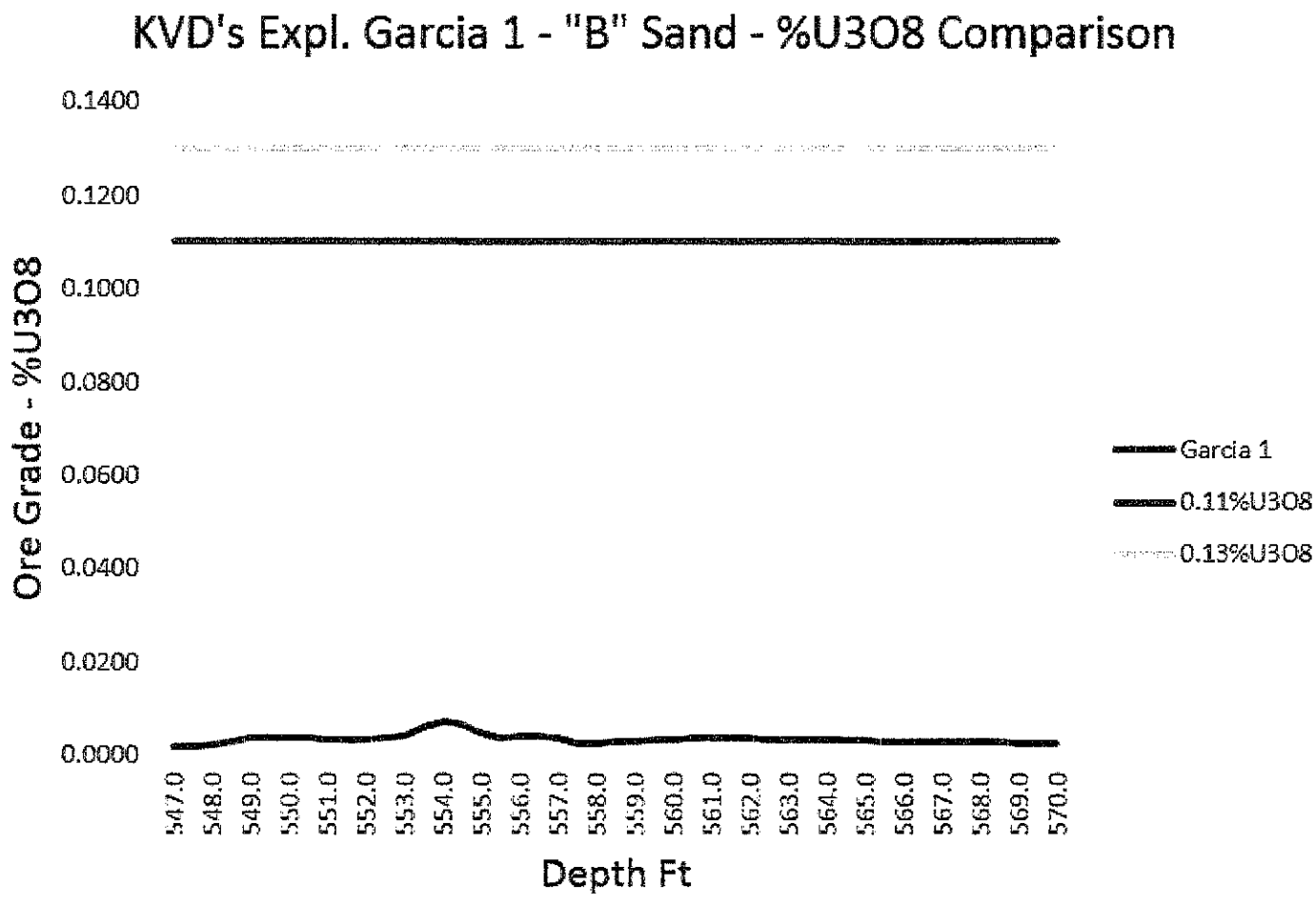
Table XII

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Expl. Garcia 1

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
547.00	110.00	110.00	0.0015	0.0017	0.0017
547.50	117.00	117.00	0.0016	0.0018	0.0018
548.00	132.00	132.00	0.0018	0.0020	0.0020
548.50	180.00	180.01	0.0024	0.0028	0.0028
549.00	235.00	235.01	0.0031	0.0036	0.0036
549.50	245.00	245.01	0.0033	0.0038	0.0038
550.00	242.00	242.01	0.0032	0.0038	0.0038
550.50	225.00	225.01	0.0030	0.0035	0.0035
551.00	210.00	210.01	0.0028	0.0033	0.0033
551.50	212.00	212.01	0.0028	0.0033	0.0033
552.00	215.00	215.01	0.0029	0.0033	0.0033
552.50	225.00	225.01	0.0030	0.0035	0.0035
553.00	250.00	250.01	0.0033	0.0039	0.0039
553.50	390.00	390.03	0.0052	0.0061	0.0061
554.00	460.00	460.05	0.0061	0.0071	0.0071
554.50	430.00	430.04	0.0057	0.0067	0.0067
555.00	300.00	300.02	0.0040	0.0047	0.0047
555.50	245.00	245.01	0.0033	0.0038	0.0038
556.00	250.00	250.01	0.0033	0.0039	0.0039
556.50	265.00	265.02	0.0035	0.0041	0.0041
557.00	230.00	230.01	0.0031	0.0036	0.0036
557.50	170.00	170.01	0.0023	0.0026	0.0026
558.00	165.00	165.01	0.0022	0.0026	0.0026
558.50	180.00	180.01	0.0024	0.0028	0.0028
559.00	195.00	195.01	0.0026	0.0030	0.0030
559.50	205.00	205.01	0.0027	0.0032	0.0032
560.00	220.00	220.01	0.0029	0.0034	0.0034
560.50	227.00	227.01	0.0030	0.0035	0.0035
561.00	225.00	225.01	0.0030	0.0035	0.0035
561.50	238.00	238.01	0.0032	0.0037	0.0037
562.00	225.00	225.01	0.0030	0.0035	0.0035
562.50	210.00	210.01	0.0028	0.0033	0.0033
563.00	215.00	215.01	0.0029	0.0033	0.0033
563.50	215.00	215.01	0.0029	0.0033	0.0033
564.00	212.00	212.01	0.0028	0.0033	0.0033
564.50	212.00	212.01	0.0028	0.0033	0.0033
565.00	212.00	212.01	0.0028	0.0033	0.0033
565.50	175.00	175.01	0.0023	0.0027	0.0027
566.00	175.00	175.01	0.0023	0.0027	0.0027
566.50	188.00	188.01	0.0025	0.0029	0.0029
567.00	191.00	191.01	0.0026	0.0030	0.0030
567.50	191.00	191.01	0.0026	0.0030	0.0030
568.00	195.00	195.01	0.0026	0.0030	0.0030
568.50	175.00	175.01	0.0023	0.0027	0.0027
569.00	159.00	159.01	0.0021	0.0025	0.0025
569.50	162.00	162.01	0.0022	0.0025	0.0025
570.00	170.00	170.01	0.0023	0.0026	0.0026

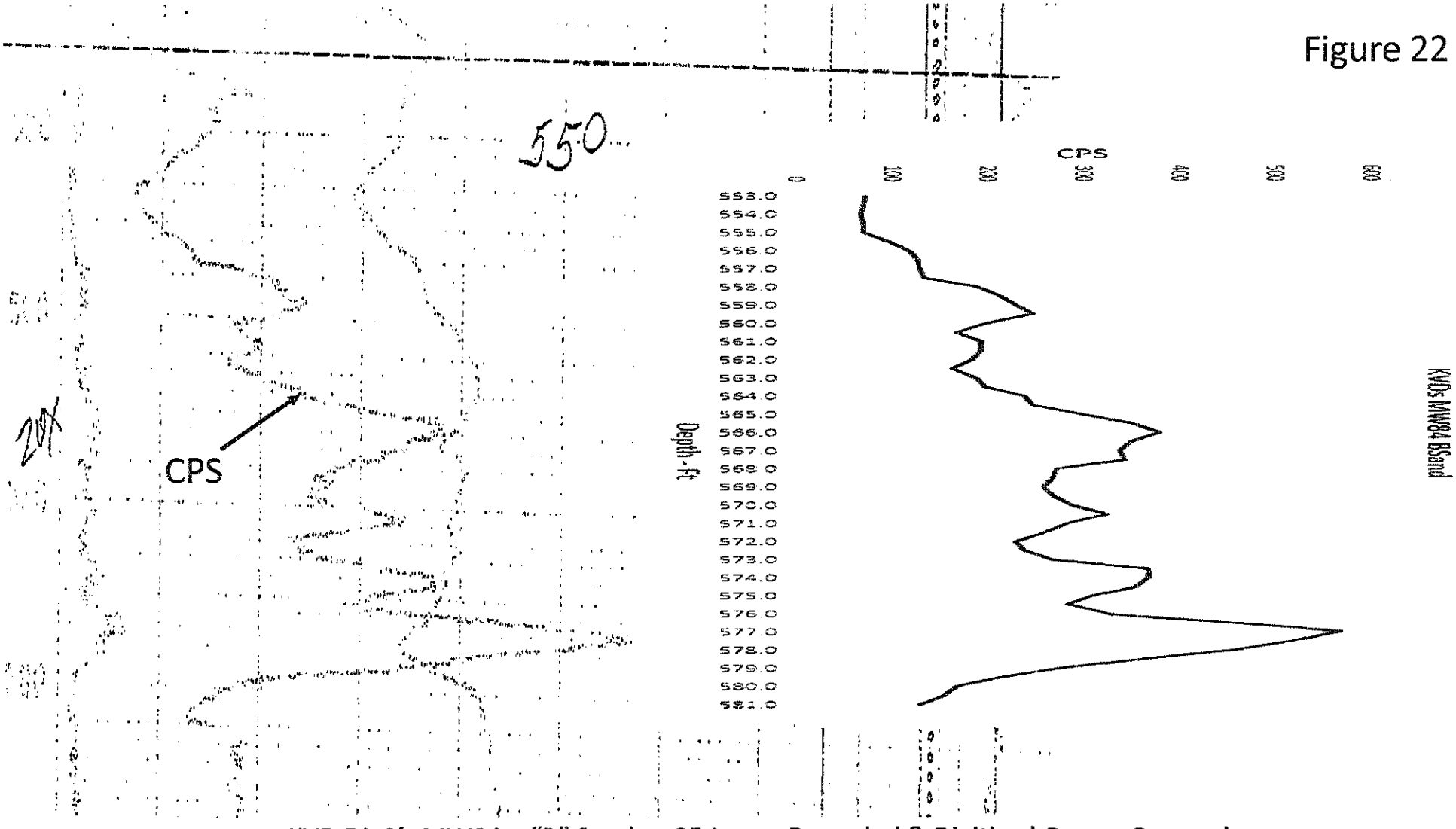
Figure 21


KVD's Expl. Garcia 1 - "B" Sand - %U3O8 Comparison
Ore Grade - %U3O8
0.1400
0.1200
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
547.0
548.0
549.0
550.0
551.0
552.0
553.0
554.0
555.0
556.0
557.0
558.0
559.0
560.0
561.0
562.0
563.0
564.0
565.0
566.0
567.0
568.0
569.0
570.0
Depth Ft
Garcia 1
0.11%U3O8
0.13%U3O8

The Assay for KVD's PA-3 MW84, "B" Sand, is shown in Figures 22 and 23, and in Table XIII.

Figure 23 illustrates the spread between the estimated ore grade values across the "B" Sand in the PA-3 MW84 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

Figure 22



KVD PA-3's MW84 – "B" Sand - GR Log - Recorded & Digitized Curves Comparison

Table XIII
(Continues)

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs PA-3 MW-84

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
553.00	75.00	75.00	0.0008	0.0010	0.0010
553.50	73.00	73.00	0.0008	0.0010	0.0010
554.00	69.00	69.00	0.0007	0.0009	0.0009
554.50	73.00	73.00	0.0008	0.0010	0.0010
555.00	73.00	73.00	0.0008	0.0010	0.0010
555.50	100.00	100.00	0.0011	0.0013	0.0013
556.00	120.00	120.00	0.0013	0.0016	0.0016
556.50	128.00	128.00	0.0014	0.0017	0.0017
557.00	130.00	130.00	0.0014	0.0017	0.0017
557.50	135.00	135.00	0.0014	0.0018	0.0018
558.00	190.00	190.01	0.0020	0.0025	0.0025
558.50	215.00	215.01	0.0023	0.0029	0.0029
559.00	230.00	230.01	0.0025	0.0031	0.0031
559.50	250.00	250.02	0.0027	0.0033	0.0033
560.00	200.00	200.01	0.0021	0.0027	0.0027
560.50	170.00	170.01	0.0018	0.0023	0.0023
561.00	195.00	195.01	0.0021	0.0026	0.0026
561.50	195.00	195.01	0.0021	0.0026	0.0026
562.00	185.00	185.01	0.0020	0.0025	0.0025
562.50	165.00	165.01	0.0018	0.0022	0.0022
563.00	190.00	190.01	0.0020	0.0025	0.0025
563.50	200.00	200.01	0.0021	0.0027	0.0027
564.00	240.00	240.02	0.0026	0.0032	0.0032
564.50	250.00	250.02	0.0027	0.0033	0.0033
565.00	300.00	300.02	0.0032	0.0040	0.0040
565.50	350.00	350.03	0.0037	0.0047	0.0047
566.00	380.00	380.04	0.0041	0.0051	0.0051

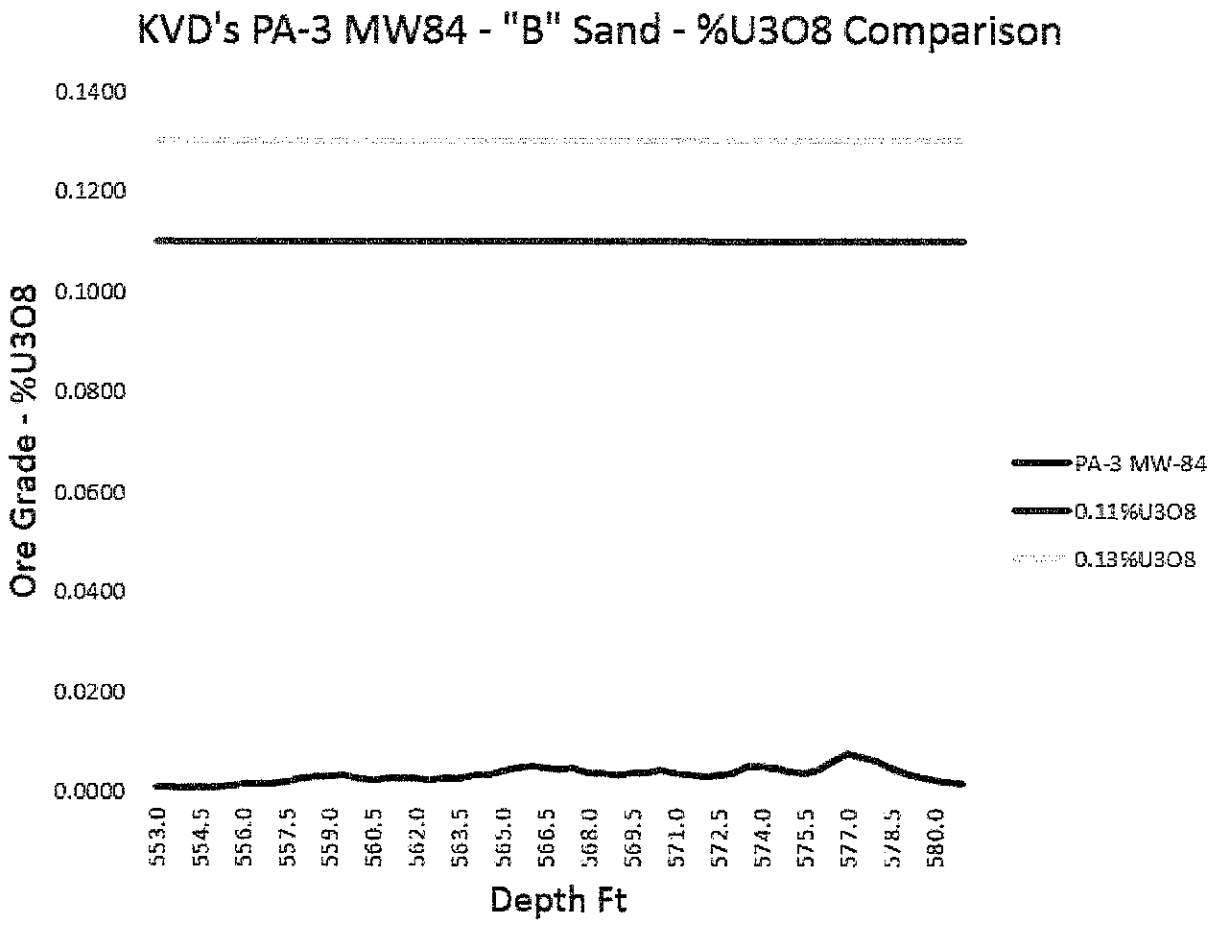
Table XIII
(Concluded)

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVD's PA-3 MW84

566.50	350.00	350.03	0.0037	0.0047	0.0047
567.00	340.00	340.03	0.0036	0.0045	0.0045
567.50	345.00	345.03	0.0037	0.0046	0.0046
568.00	275.00	275.02	0.0029	0.0037	0.0037
568.50	270.00	270.02	0.0029	0.0036	0.0036
569.00	260.00	260.02	0.0028	0.0035	0.0035
569.50	270.00	270.02	0.0029	0.0036	0.0036
570.00	290.00	290.02	0.0031	0.0039	0.0039
570.50	325.00	325.03	0.0035	0.0043	0.0043
571.00	285.00	285.02	0.0030	0.0038	0.0038
571.50	260.00	260.02	0.0028	0.0035	0.0035
572.00	230.00	230.01	0.0025	0.0031	0.0031
572.50	240.00	240.02	0.0026	0.0032	0.0032
573.00	270.00	270.02	0.0029	0.0036	0.0036
573.50	370.00	370.04	0.0040	0.0049	0.0049
574.00	370.00	370.04	0.0040	0.0049	0.0049
574.50	355.00	355.03	0.0038	0.0047	0.0047
575.00	310.00	310.03	0.0033	0.0041	0.0041
575.50	285.00	285.02	0.0030	0.0038	0.0038
576.00	330.00	330.03	0.0035	0.0044	0.0044
576.50	450.00	450.05	0.0048	0.0060	0.0060
577.00	570.00	570.09	0.0061	0.0076	0.0076
577.50	520.00	520.07	0.0056	0.0069	0.0069
578.00	460.00	460.06	0.0049	0.0061	0.0061
578.50	365.00	365.04	0.0039	0.0049	0.0049
579.00	275.00	275.02	0.0029	0.0037	0.0037
579.50	215.00	215.01	0.0023	0.0029	0.0029
580.00	170.00	170.01	0.0018	0.0023	0.0023
580.50	155.00	155.01	0.0017	0.0021	0.0021
581.00	130.00	130.00	0.0014	0.0017	0.0017

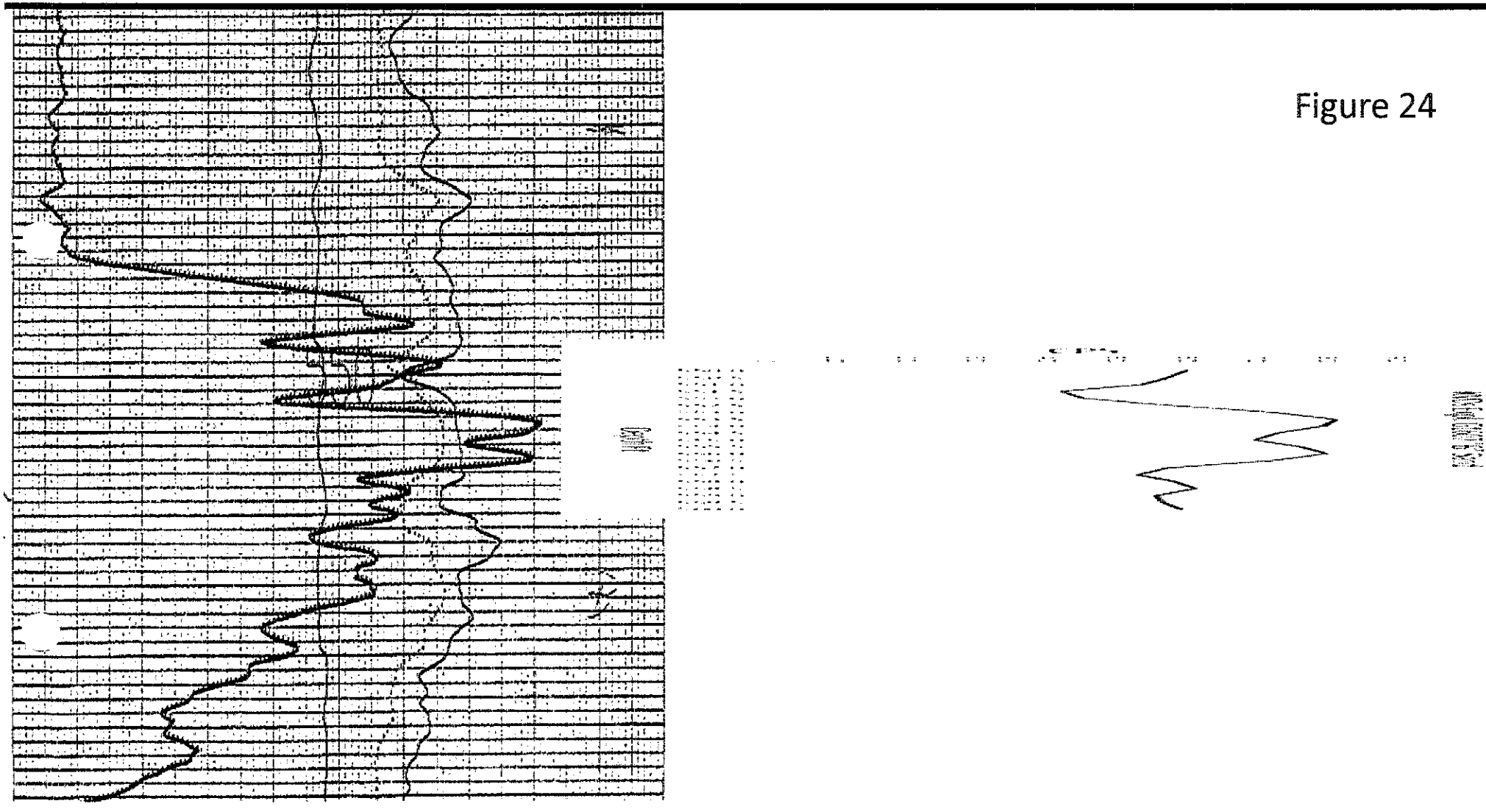
Figure 23


KVD's PA-3 MW84 - "B" Sand - %U3O8 Comparison
0.1400
0.1200
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
Ore Grade - %U3O8
553.0
554.5
556.0
557.5
559.0
560.5
562.0
563.5
565.0
566.5
568.0
569.5
571.0
572.5
574.0
575.5
577.0
578.5
580.0
Depth Ft
PA-3 MW-84
0.11%U3O8
0.13%U3O8

The Assay for KVD's Exploratory Garcia 1607, "B" Sand, is shown in Figures 24 and 25, and in Table XIV.

Figure 25 illustrates the spread between the estimated ore grade values across the "B" Sand in the Garcia 1607 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

Figure 24



KVD's Expl. G1607 – "B" Sand - GR Log - Recorded & Digitized Curves Comparison

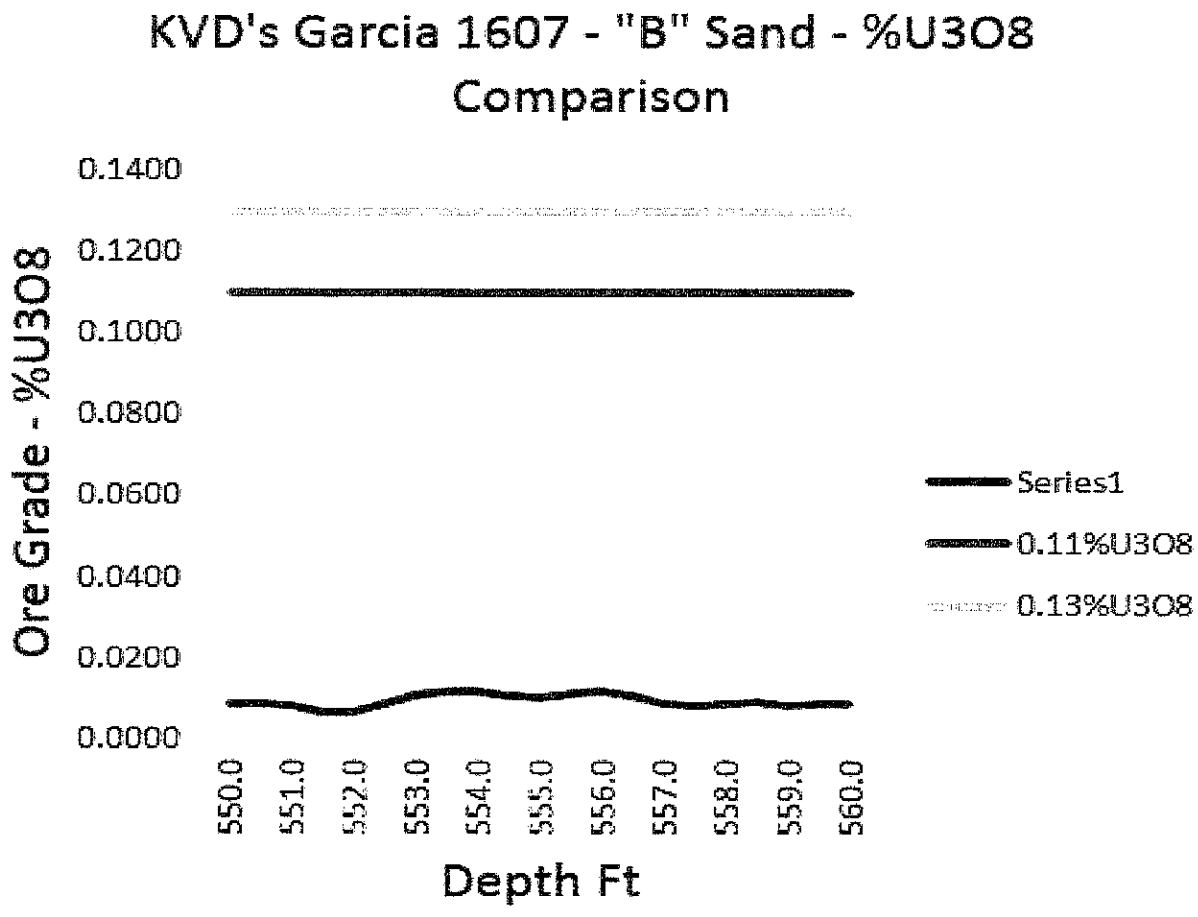
Table XIV

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVD's Expl. Garcia 1607

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR.	STEEL CASING CORRECTION
550.00	597	597.58	0.0074	0.0087	0.0087
550.50	574	573.90	0.0071	0.0084	0.0084
551.00	535	534.89	0.0066	0.0078	0.0078
551.50	421	420.66	0.0052	0.0061	0.0061
552.00	451	451.30	0.0056	0.0066	0.0066
552.50	571	571.11	0.0070	0.0083	0.0083
553.00	720	720.19	0.0089	0.0105	0.0105
553.50	811	810.75	0.0100	0.0118	0.0118
554.00	795	795.42	0.0098	0.0116	0.0116
554.50	731	731.33	0.0090	0.0106	0.0106
555.00	696	696.50	0.0086	0.0101	0.0101
555.50	762	761.98	0.0094	0.0111	0.0111
556.00	798	798.21	0.0098	0.0116	0.0116
556.50	721	721.58	0.0089	0.0105	0.0105
557.00	571	571.11	0.0070	0.0083	0.0083
557.50	529	529.32	0.0065	0.0077	0.0077
558.00	582	582.26	0.0072	0.0085	0.0085
558.50	611	611.51	0.0075	0.0089	0.0089
559.00	557	557.18	0.0069	0.0081	0.0081
559.50	565	565.54	0.0070	0.0082	0.0082
560.00	592	592.01	0.0073	0.0086	0.0086

Figure 25


KVD's Garcia 1607 - "B" Sand - %U3O8 Comparison
Ore Grade - %U3O8
0.1400
0.1200
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
550.0
551.0
552.0
553.0
554.0
555.0
556.0
557.0
558.0
559.0
560.0
Depth Ft
Series1
0.11%U3O8
0.13%U3O8

The Assay for KVD's Exploratory Garcia 1607, "AA" Sand, is shown in Figures 26 and 27, and in Table XV.

Figure 27 illustrates the spread between the estimated ore grade values across the "AA" Sand in the Garcia 1607 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

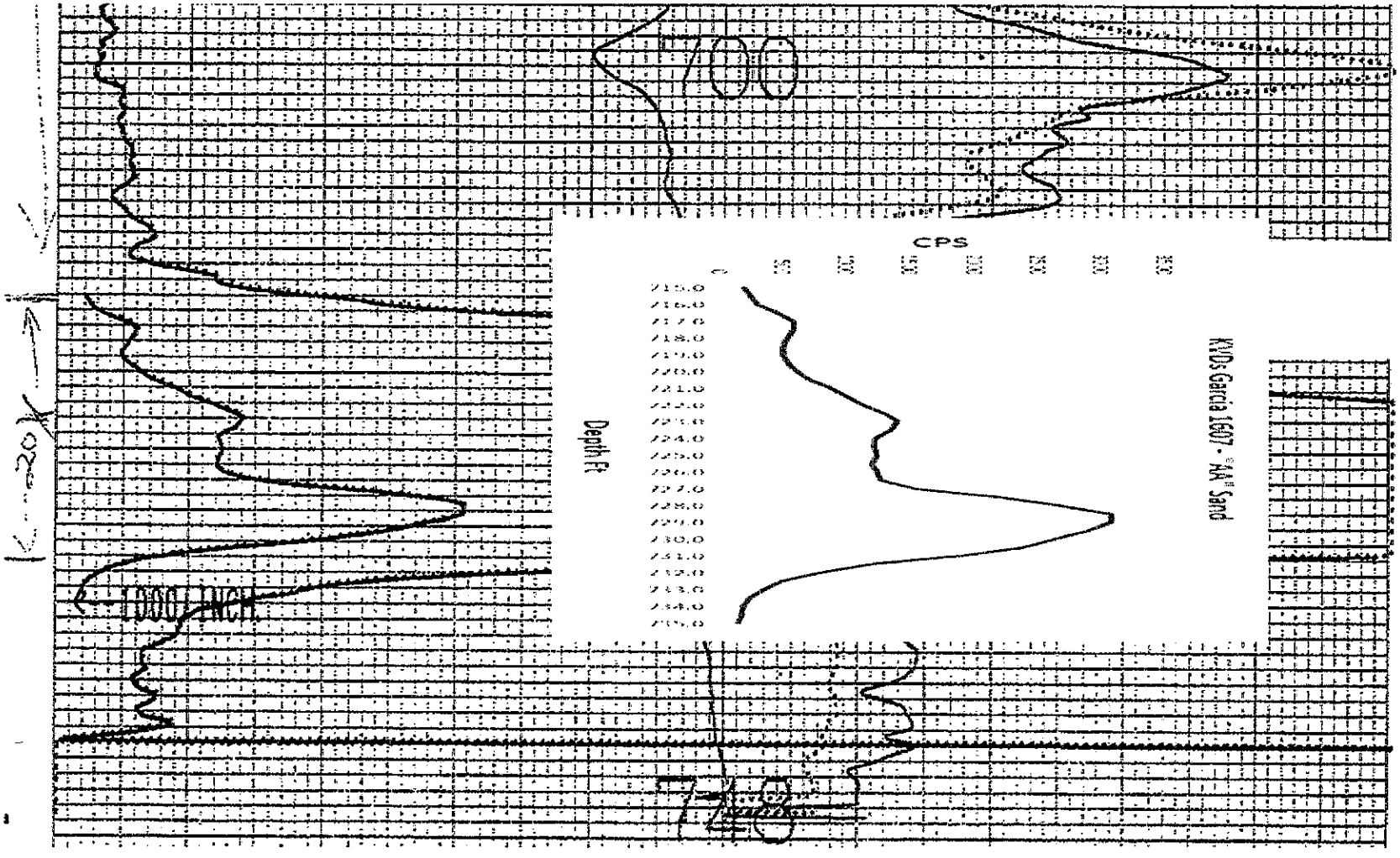


Figure 26

KVD's Expl. Garcia 1607 – "AA" Sand – GR Recorded & Digitized Curves Comparison

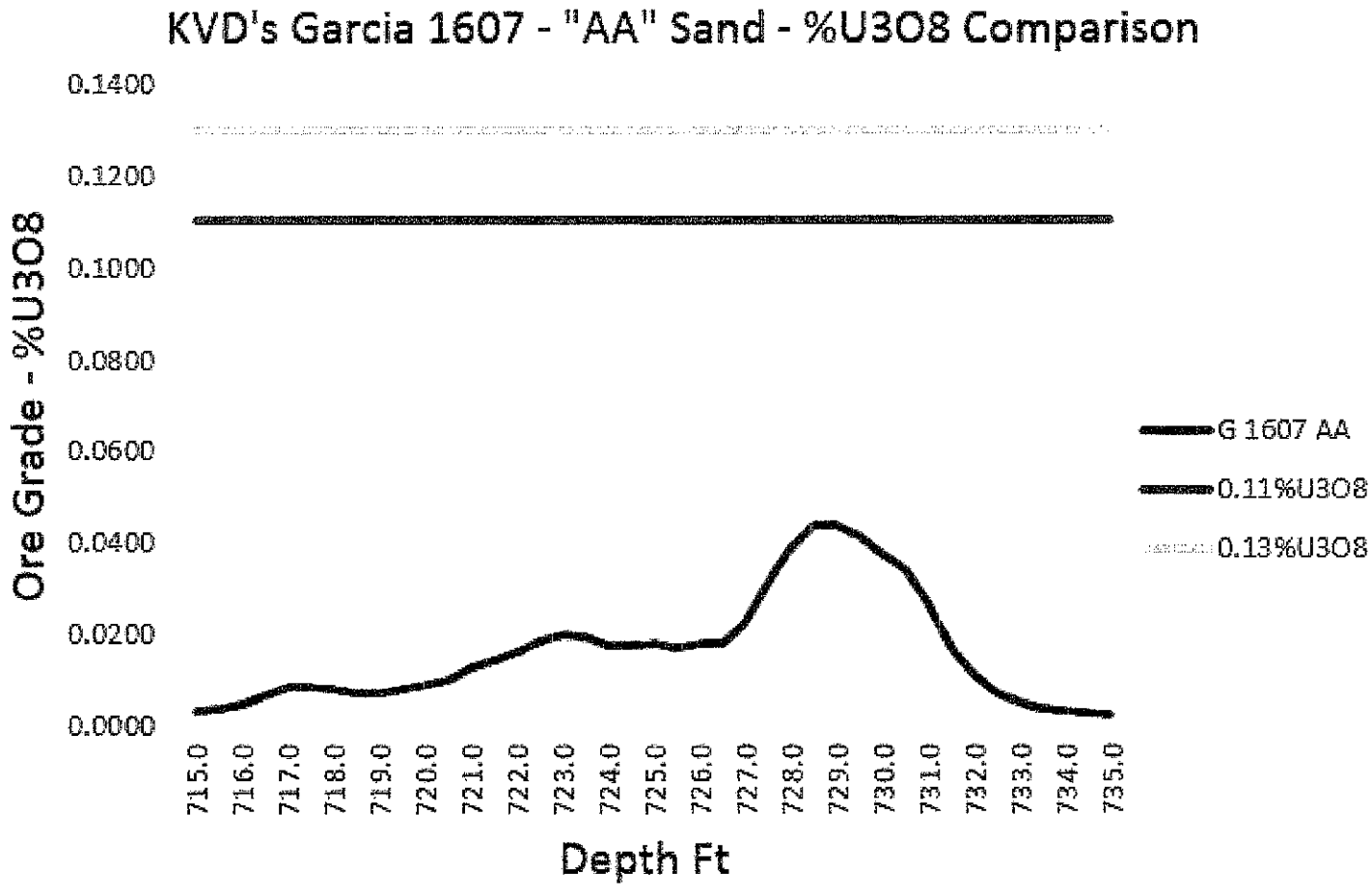
Table XV

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVD's Garcia 1607 "AA" Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	MUSCB RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR.	STEEL CASING CORRECTION
715.0	200	200.01	0.0025	0.0028	0.0028
715.5	250	250.02	0.0031	0.0035	0.0035
716.0	300	300.02	0.0037	0.0043	0.0043
716.5	450	450.05	0.0056	0.0064	0.0064
717.0	580	580.08	0.0072	0.0082	0.0082
717.5	590	590.09	0.0073	0.0084	0.0084
718.0	550	550.08	0.0068	0.0078	0.0078
718.5	500	500.06	0.0062	0.0071	0.0071
719.0	500	500.06	0.0062	0.0071	0.0071
719.5	540	540.07	0.0067	0.0077	0.0077
720.0	610	610.09	0.0075	0.0086	0.0086
720.5	700	700.12	0.0086	0.0099	0.0099
721.0	880	880.19	0.0109	0.0125	0.0125
721.5	1000	1000.25	0.0123	0.0142	0.0142
722.0	1140	1140.32	0.0141	0.0162	0.0162
722.5	1300	1300.42	0.0160	0.0184	0.0184
723.0	1400	1400.49	0.0173	0.0199	0.0199
723.5	1355	1355.46	0.0167	0.0192	0.0192
724.0	1225	1225.38	0.0151	0.0174	0.0174
724.5	1215	1215.37	0.0150	0.0172	0.0172
725.0	1250	1250.39	0.0154	0.0177	0.0177
725.5	1200	1200.36	0.0148	0.0170	0.0170
726.0	1250	1250.39	0.0154	0.0177	0.0177
726.5	1275	1275.41	0.0157	0.0181	0.0181
727.0	1550	1550.60	0.0191	0.0220	0.0220
727.5	2200	2201.21	0.0272	0.0312	0.0312
728.0	2700	2701.82	0.0333	0.0383	0.0383
728.5	3085	3087.38	0.0381	0.0438	0.0438
729.0	3085	3087.38	0.0381	0.0438	0.0438
729.5	2900	2902.10	0.0358	0.0411	0.0411
730.0	2640	2641.74	0.0326	0.0374	0.0374
730.5	2390	2391.43	0.0295	0.0339	0.0339
731.0	1900	1900.90	0.0235	0.0269	0.0269
731.5	1200	1200.36	0.0148	0.0170	0.0170
732.0	800	800.16	0.0099	0.0113	0.0113
732.5	500	500.06	0.0062	0.0071	0.0071
733.0	350	350.03	0.0043	0.0050	0.0050
733.5	250	250.02	0.0031	0.0035	0.0035

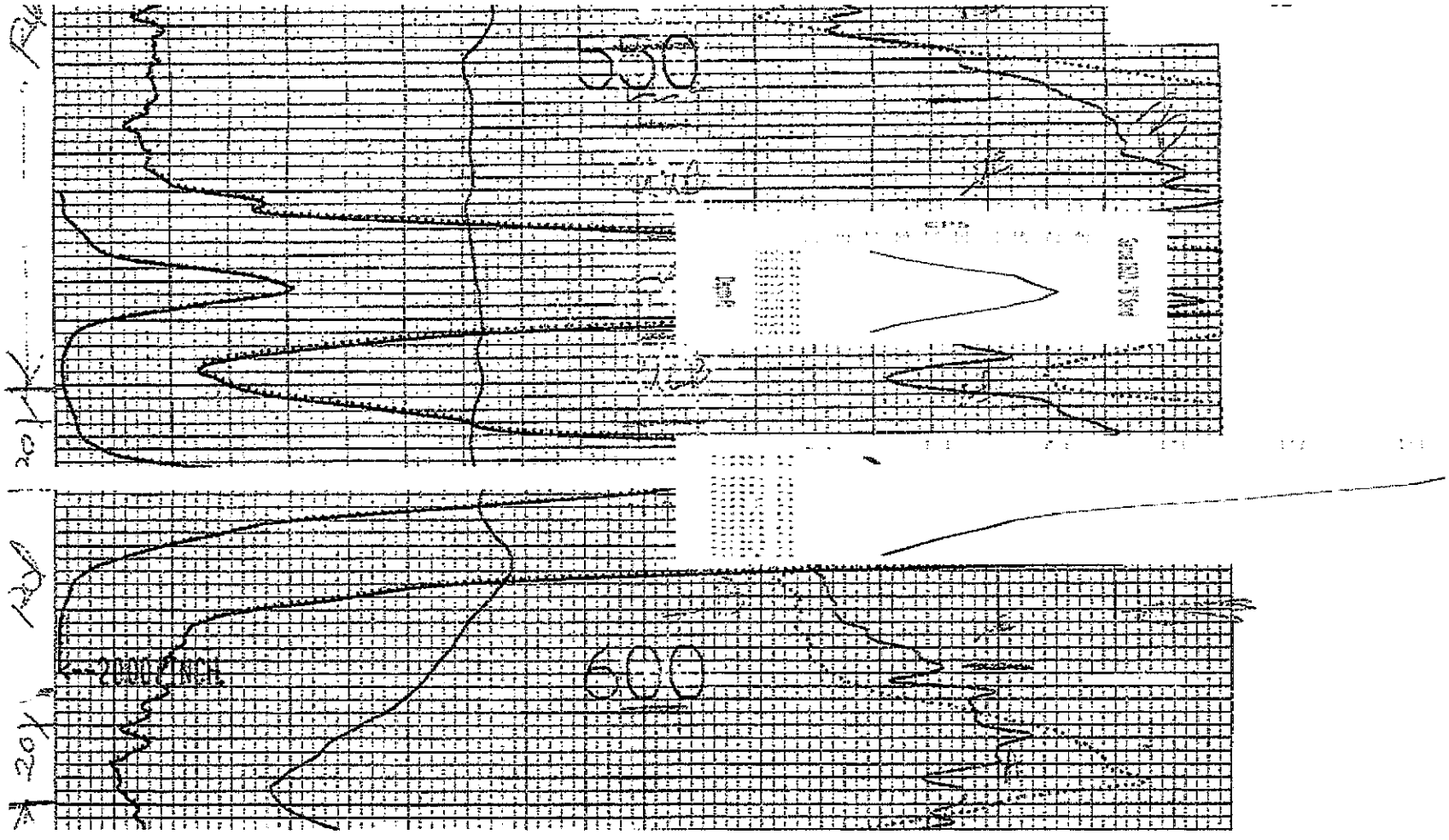
Figure 27


KVD's Garcia 1607 - "AA" Sand - %U3O8 Comparison
Ore Grade - %U3O8
0.1400
0.1200
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
715.0
716.0
717.0
718.0
719.0
720.0
721.0
722.0
723.0
724.0
725.0
726.0
727.0
728.0
729.0
730.0
731.0
732.0
733.0
734.0
735.0
Depth Ft
G 1607 AA
0.11%U3O8
0.13%U3O8

The Assay for KVD's Exploratory Garcia 1622, "B" Sand, is shown in Figures 28 and 29, and in Table XVI.

Figure 29 illustrates the proximity between the estimated ore grade values across the "B" Sand in the Garcia 1622 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

Figure 28



KVD's Exploratory Garcia 1622 – "B" Sand – GR Recorded & Digitized Curves Comparison

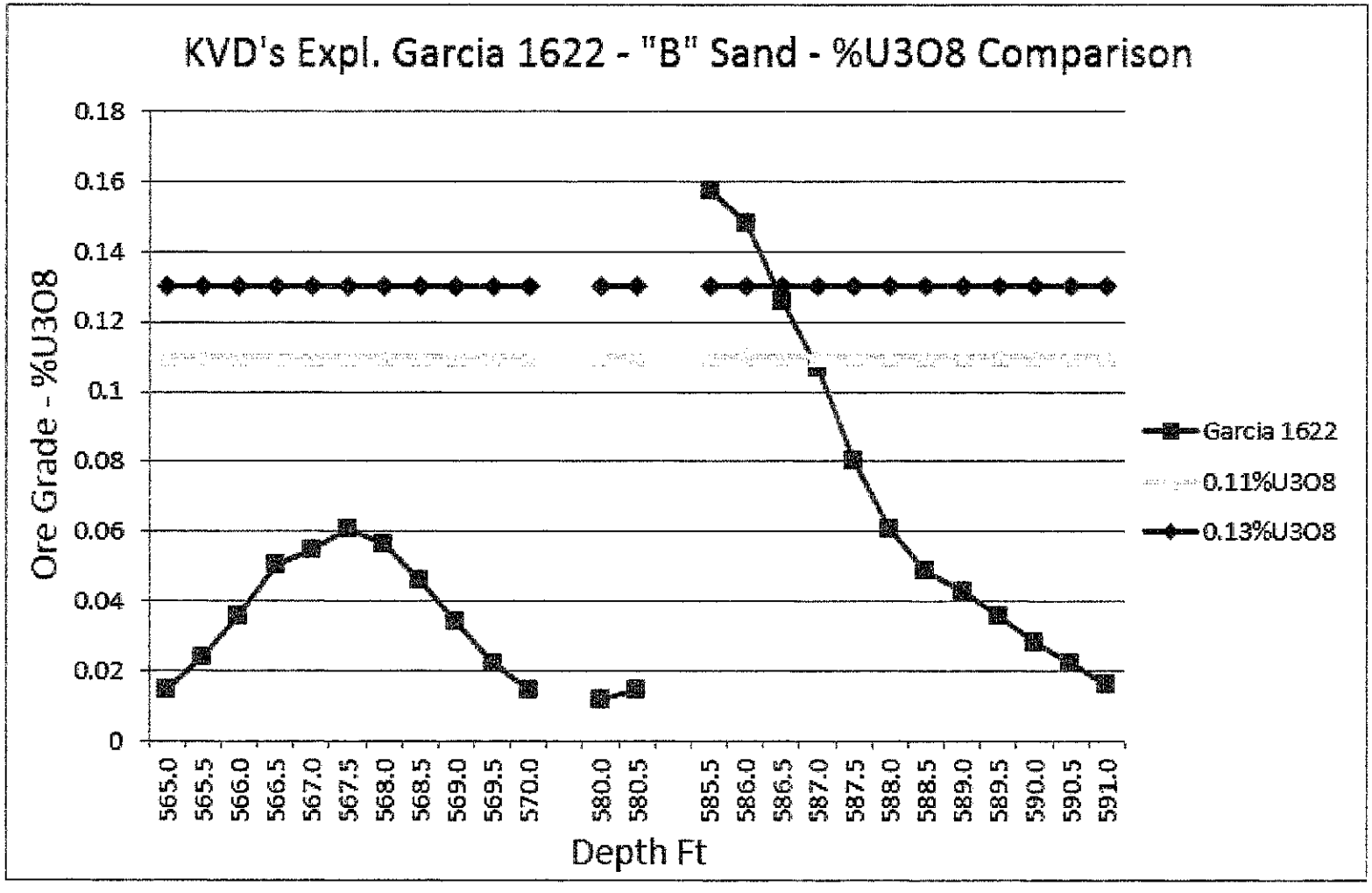
Table XVI

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVDs Garcia 1622 "B" Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
565.00	1000.00	1000.25	0.0129	0.0148	0.0148
565.50	1600.00	1600.64	0.0206	0.0237	0.0237
566.00	2400.00	2401.44	0.0309	0.0355	0.0355
566.50	3400.00	3402.89	0.0438	0.0503	0.0503
567.00	3700.00	3703.43	0.0477	0.0548	0.0548
567.50	4100.00	4104.21	0.0529	0.0607	0.0607
568.00	3800.00	3803.61	0.0490	0.0563	0.0563
568.50	3100.00	3102.40	0.0400	0.0459	0.0459
569.00	2300.00	2301.32	0.0296	0.0340	0.0340
569.50	1500.00	1500.56	0.0193	0.0222	0.0222
570.00	1000.00	1000.25	0.0129	0.0148	0.0148
580.00	800.00	800.16	0.0103	0.0118	0.0118
580.50	1000.00	1000.25	0.0129	0.0148	0.0148
585.50	10600.00	10628.16	0.1369	0.1572	0.1572
586.00	10000.00	10025.06	0.1291	0.1483	0.1483
586.50	8500.00	8518.10	0.1097	0.1260	0.1260
587.00	7200.00	7212.98	0.0929	0.1067	0.1067
587.50	5400.00	5407.30	0.0696	0.0800	0.0800
588.00	4100.00	4104.21	0.0529	0.0607	0.0607
588.50	3300.00	3302.72	0.0425	0.0489	0.0489
589.00	2900.00	2902.10	0.0374	0.0429	0.0429
589.50	2400.00	2401.44	0.0309	0.0355	0.0355
590.00	1900.00	1900.90	0.0245	0.0281	0.0281
590.50	1500.00	1500.56	0.0193	0.0222	0.0222
591.00	1100.00	1100.30	0.0142	0.0163	0.0163

Figure 29


KVD's Expl. Garcia 1622 - "B" Sand - %U3O8 Comparison
Ore Grade - %U3O8
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
565.0
565.5
566.0
566.5
567.0
567.5
568.0
568.5
569.0
569.5
570.0
580.0
580.5
585.5
586.0
586.5
587.0
587.5
588.0
588.5
589.0
589.5
590.0
590.5
591.0
Depth Ft
Garcia 1622
0.11%U3O8
0.13%U3O8

The Assay for KVD's Exploratory Garcia 1619, "B" Sand, is shown in Figures 30 and 31, and in Table XVII.

Figure 26 illustrates the spread between the estimated ore grade values across the "B" Sand in the Garcia 1619 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

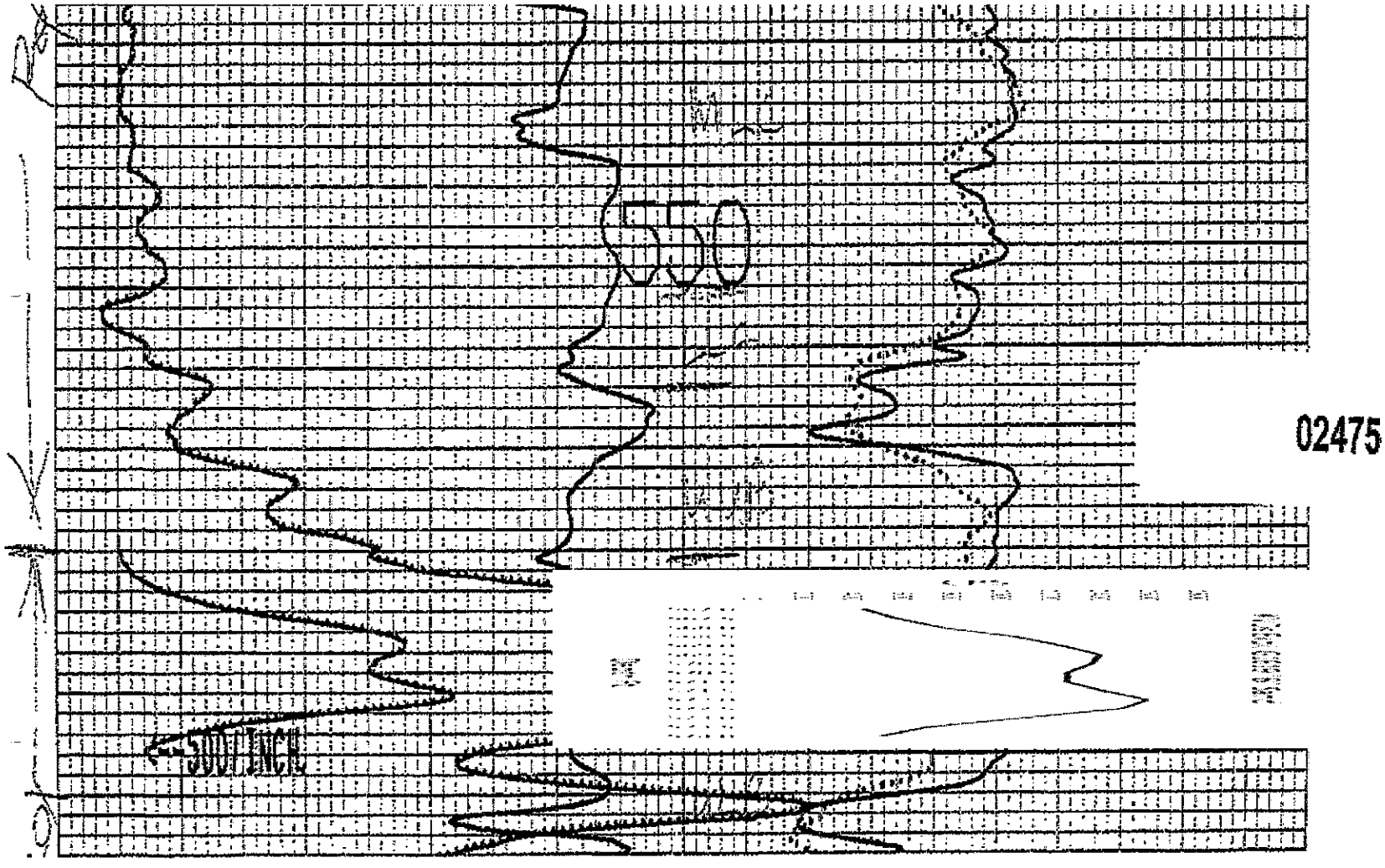


Figure 30

KVD's Exploratory Garcia 1619 – "B" Sand – GR Recorded & Digitized Curves Comparison

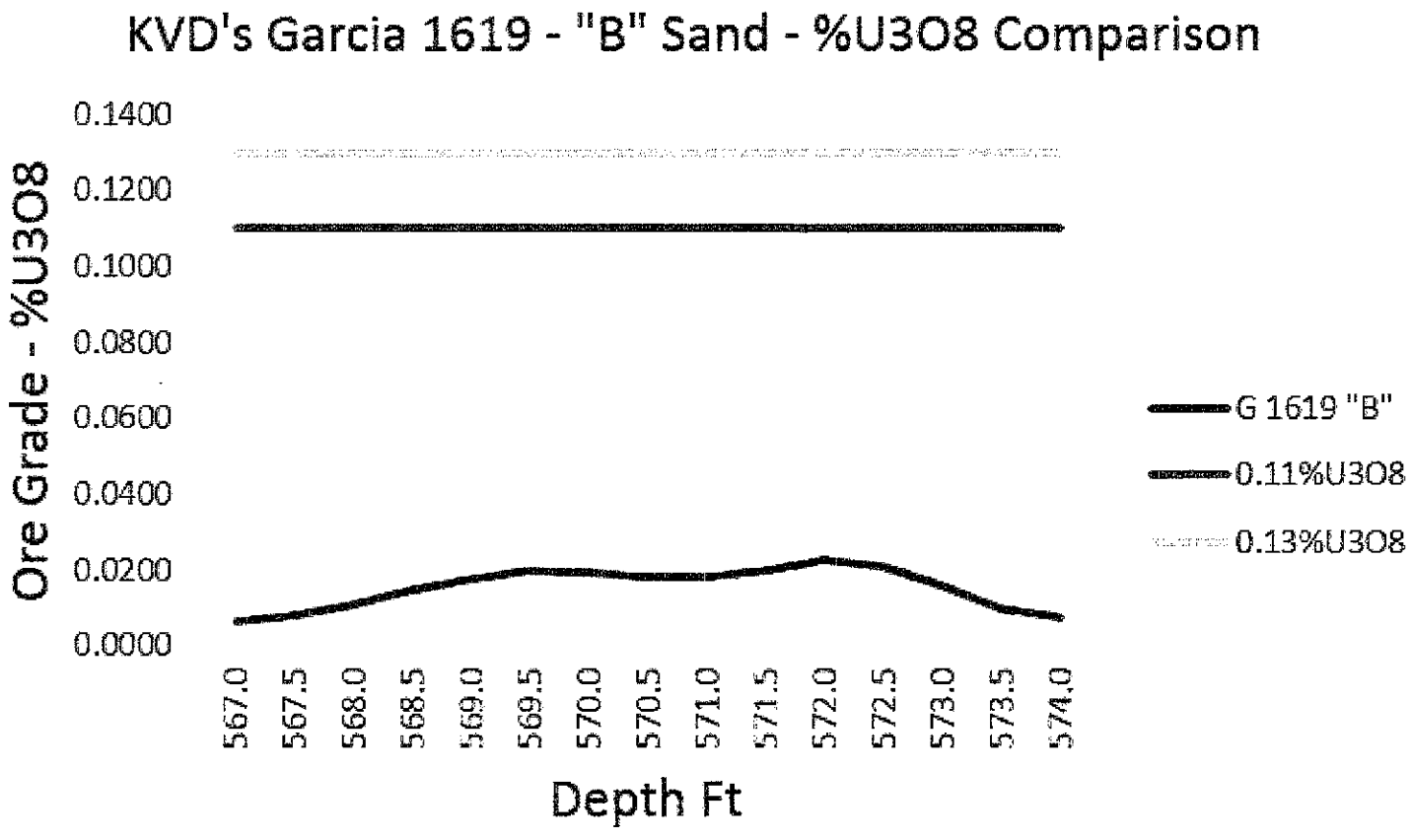
Table XVII

ORE GRADE AND GRADE-THICKNESS CALCULATION
Background to Background Method

KVD's Garcia 1619 "B" Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR.	STEEL CASING CORRECTION
567.00	448	448.33	0.0055	0.0065	0.0065
567.50	579	578.63	0.0071	0.0083	0.0083
568.00	762	762.60	0.0094	0.0110	0.0110
568.50	1054	1053.92	0.0130	0.0152	0.0152
569.00	1253	1253.27	0.0155	0.0180	0.0180
569.50	1402	1402.79	0.0173	0.0202	0.0202
570.00	1368	1368.28	0.0169	0.0197	0.0197
570.50	1272	1272.44	0.0157	0.0183	0.0183
571.00	1268	1268.60	0.0157	0.0183	0.0183
571.50	1410	1410.46	0.0174	0.0203	0.0203
572.00	1590	1590.67	0.0196	0.0229	0.0229
572.50	1490	1490.98	0.0184	0.0215	0.0215
573.00	1100	1099.92	0.0136	0.0158	0.0158
573.50	701	701.27	0.0087	0.0101	0.0101
574.00	517	517.31	0.0064	0.0074	0.0074

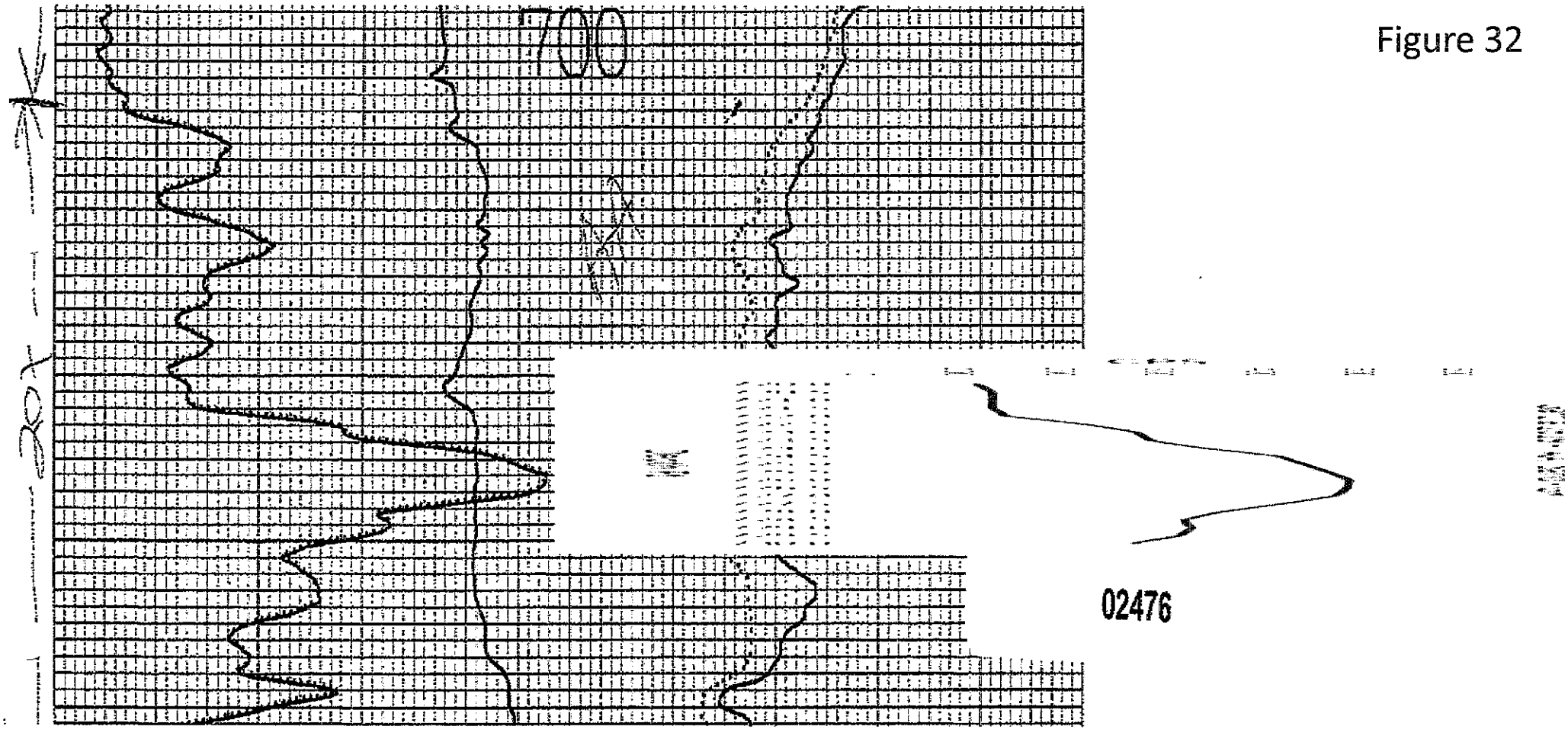
Figure 31


KVD's Garcia 1619 - "B" Sand - %U3O8 Comparison
Ore Grade - %U3O8
0.1400
0.1200
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
567.0
567.5
568.0
568.5
569.0
569.5
570.0
570.5
571.0
571.5
572.0
572.5
573.0
573.5
574.0
Depth Ft
G 1619 "B"
0.11%U3O8
0.13%U3O8

The Assay for KVD's Exploratory Garcia 1619, "AA" Sand, is shown in Figures 32 and 33, and in Table XVIII.

Figure 33 illustrates the spread between the estimated ore grade values across the "AA" Sand in the Garcia 1619 Well, and the 0.11 %U3O8 and 0.13 %U3O8 curves, the set cut-off values for mining.

Figure 32



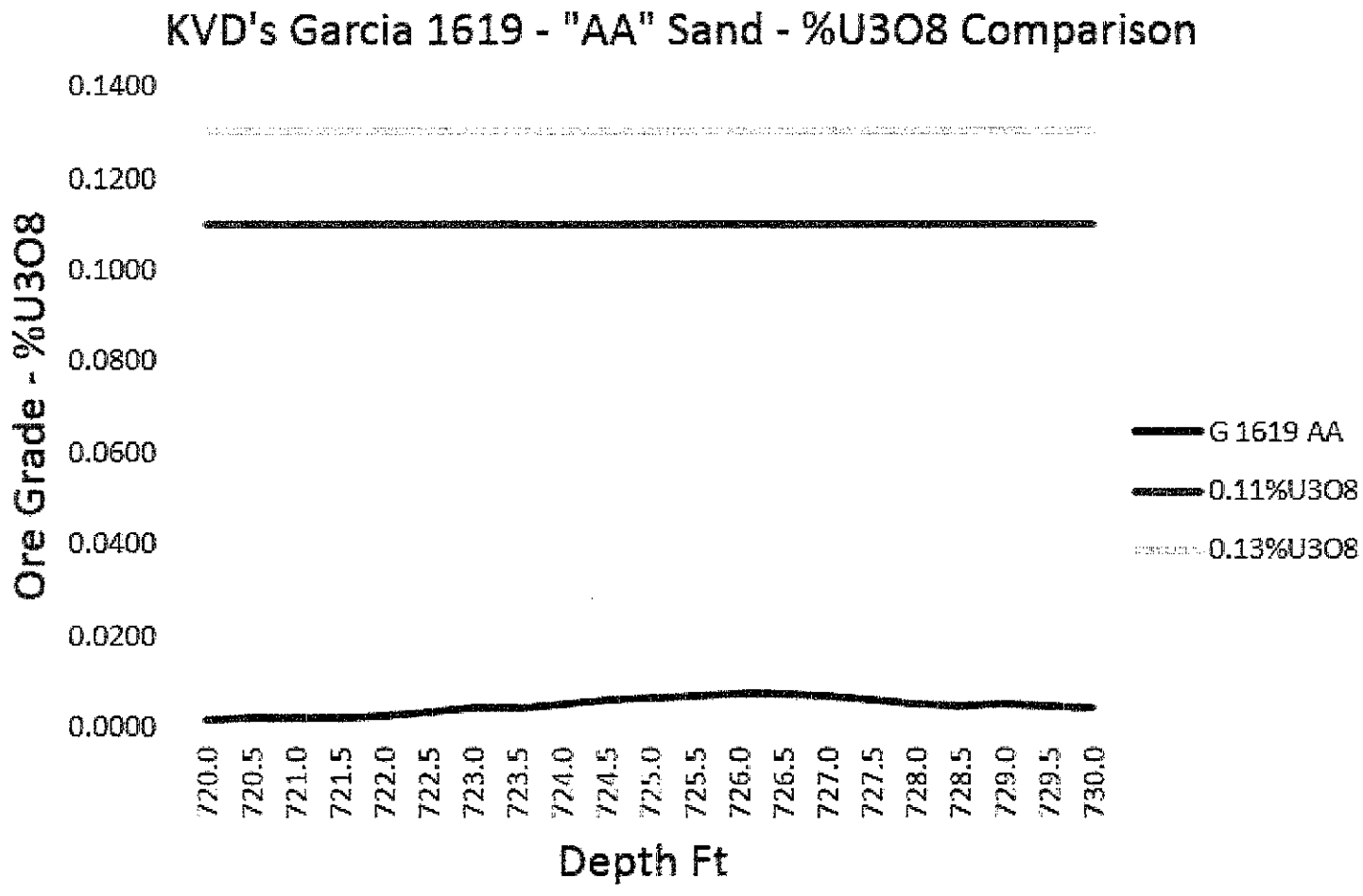
KVD's Exploratory Garcia 1619 – "AA" Sand – GR Recorded & Digitized Curves Comparison

Table XVIII

KVD's Garcia 1619 "AA" Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR.	STEEL CASING CORRECTION
720.0	117	117.19	0.0014	0.0017	0.0017
720.5	135	135.16	0.0017	0.0019	0.0019
721.0	134	134.38	0.0017	0.0019	0.0019
721.5	134	133.60	0.0016	0.0019	0.0019
722.0	148	148.44	0.0018	0.0021	0.0021
722.5	227	226.58	0.0028	0.0033	0.0033
723.0	278	278.14	0.0034	0.0040	0.0040
723.5	291	291.43	0.0036	0.0042	0.0042
724.0	348	347.69	0.0043	0.0050	0.0050
724.5	422	421.92	0.0052	0.0061	0.0061
725.0	448	448.49	0.0055	0.0065	0.0065
725.5	470	470.37	0.0058	0.0068	0.0068
726.0	493	493.03	0.0061	0.0071	0.0071
726.5	490	489.90	0.0060	0.0071	0.0071
727.0	478	478.18	0.0059	0.0069	0.0069
727.5	421	421.14	0.0052	0.0061	0.0061
728.0	361	360.97	0.0045	0.0052	0.0052
728.5	327	327.37	0.0040	0.0047	0.0047
729.0	336	335.97	0.0041	0.0048	0.0048
729.5	323	322.68	0.0040	0.0046	0.0046
730.0	277	276.58	0.0034	0.0040	0.0040

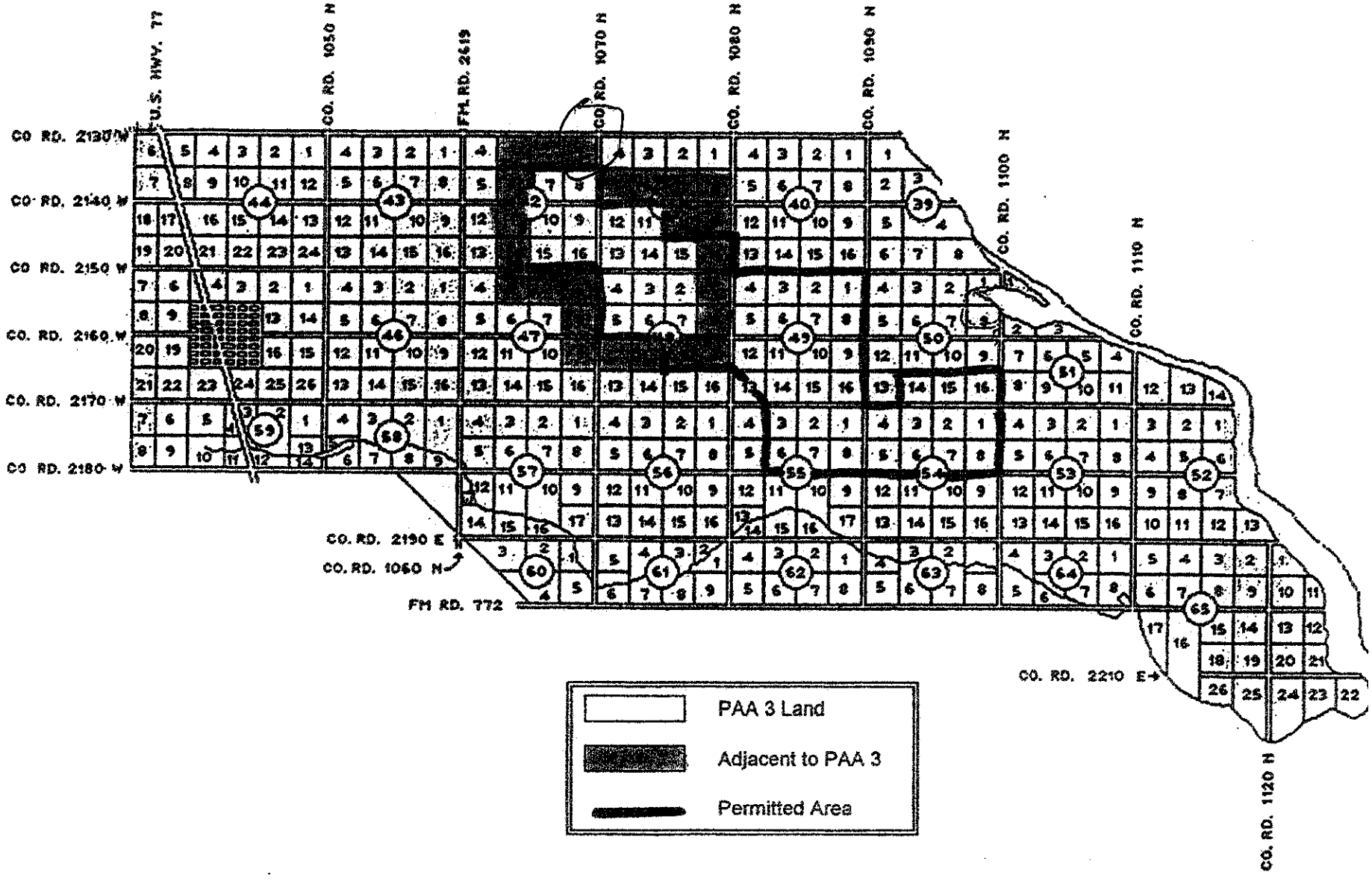
Figure 33

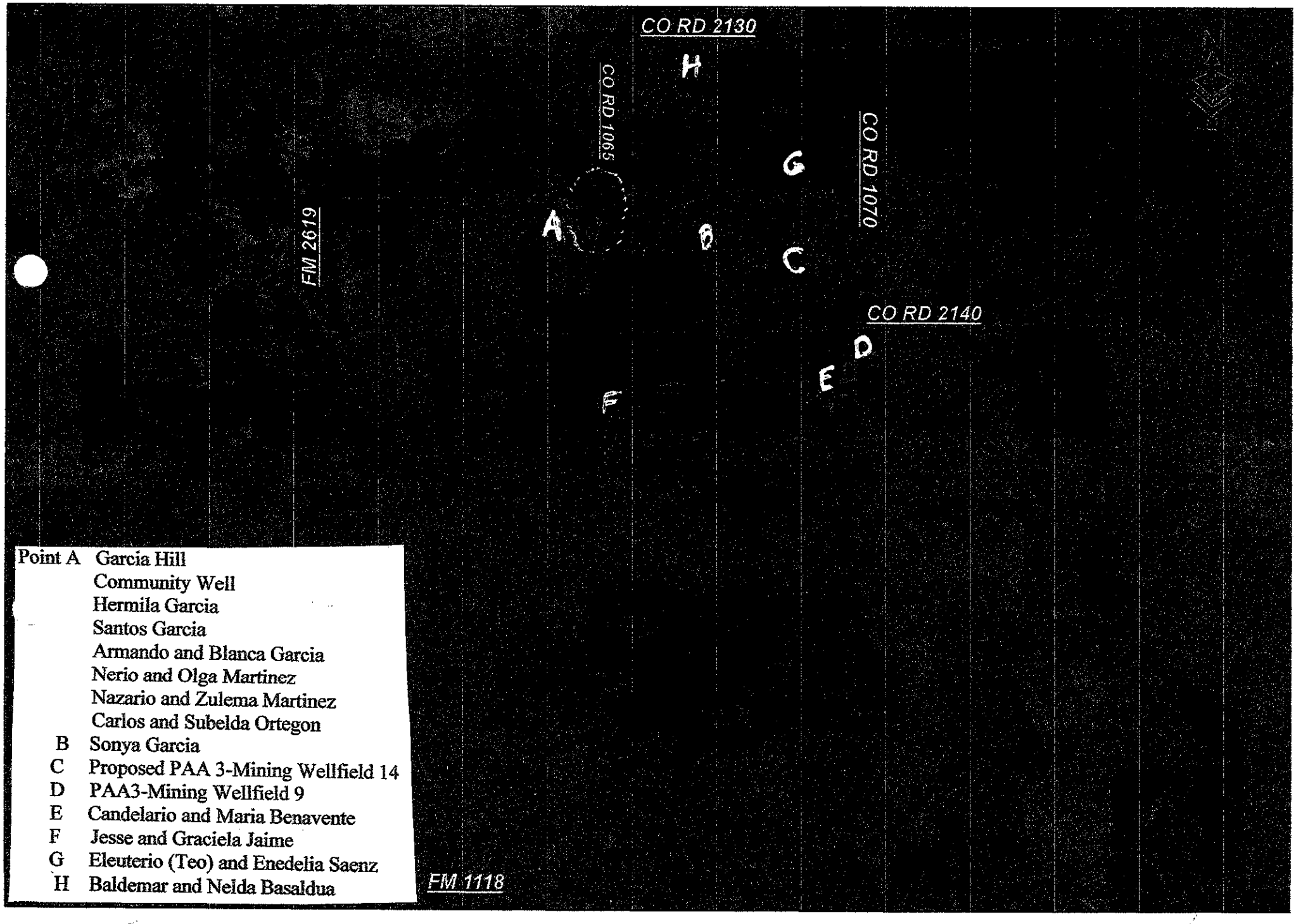

KVD's Garcia 1619 - "AA" Sand - %U3O8 Comparison
Ore Grade - %U3O8
0.1400
0.1200
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
720.0
720.5
721.0
721.5
722.0
722.5
723.0
723.5
724.0
724.5
725.0
725.5
726.0
726.5
727.0
727.5
728.0
728.5
729.0
729.5
730.0
Depth Ft
G 1619 AA
0.11%U3O8
0.13%U3O8

KLEBERG TOWN & IM. ROVEMENT COMPANY

(SOUTH PART)

Attachment E





Point A	Garcia Hill
	Community Well
	Hermila Garcia
	Santos Garcia
	Armando and Blanca Garcia
	Nerio and Olga Martinez
	Nazario and Zulema Martinez
	Carlos and Subelda Ortegon
B	Sonya Garcia
C	Proposed PAA 3-Mining Wellfield 14
D	PAA3-Mining Wellfield 9
E	Candelario and Maria Benavente
F	Jesse and Graciela Jaime
G	Eleuterio (Teo) and Enedelia Saenz
H	Baldemar and Nelda Basaldua

E. Saenz
148 E. CR 2120
Kingsville, tx
78363

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TEXAS
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2015 AUG -5 PM 2:20

CHIEF CLERKS OFFICE

Bridget C. Bohac, Chief Clerk
TCEQ, MC 105
P.O Box 13087
Austin, Texas 78711-3087

Marisa Weber

From: PUBCOMMENT
Sent: Tuesday, May 07, 2013 8:46 AM
To: PUBCOMMENT-OCC2
Subject: FW: Public comment on Permit Number UR02827

H

UR 84705

From: PUBCOMMENT-OCC
Sent: Tuesday, May 07, 2013 7:26 AM
To: PUBCOMMENT
Subject: FW: Public comment on Permit Number UR02827

From: saenzteo@yahoo.com [mailto:saenzteo@yahoo.com]
Sent: Monday, May 06, 2013 11:38 PM
To: donotReply@tceq.state.tx.us
Subject: Public comment on Permit Number UR02827

REGULATED ENTY NAME KINGSVILLE DOME

RN NUMBER: RN102380763

PERMIT NUMBER: UR02827

DOCKET NUMBER:

COUNTY: KLEBERG

PRINCIPAL NAME: URI INC

CN NUMBER: CN600604417

FROM

NAME: MR Eleuterio Saenz

E-MAIL: saenzteo@yahoo.com

COMPANY:

ADDRESS: 148 E COUNTY ROAD 2170
KINGSVILLE TX 78363-2601

PHONE: 3615924156

FAX:

COMMENTS: I, ELEUTERIO SAENZ, INDIVIDUALLY, request a contested case hearing on the application by URI, Inc. "TO OBTAIN RENEWAL AND MAJOR AMENDMENT OF A CLASS ii INJECTION WELL AREA PERMIT" IN KLEBERG COUNTY, TEXAS UR02827. Location and Distance of my Property: I own 50 % of lots 2,3,4,5,6, of the Saenz Subdivision and 50 % of the minerals of lot 1,2,3,4,5,6 of Saenz Subdivision also known as Lot 1 Block 42 Kleberg Town and Improvement Company which is directly North of PAA 3. HOw I would be affected: URI is unable to prevent the migration of mining fluids beyond the mining area and as an adjoining landowner, I have and will continue to be affected by URI's Uranium Mining due to water contamination. The property value of my interest has decreased and my right to use the groundwater curtailed by URI's in Situ mining operations. Contact number- 361-592-4156 361-455-5341

Eleuterio L. Saenz

148 E. Cr. 2170

Kingsville, Texas 78363

361-592-4156, 361-522-2773

UR 84705

March 15, 2015 RE: Permit No. UR02827

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
2015 MAR 16 PM 2:37
CHIEF CLERKS OFFICE

Chief Clerk's Office, MC 105

Texas Commission on Environmental Quality

P.O. Box 13087

Austin, Texas 78711-3087

REVIEWED
MAR 20 2015
By

Chief Clerk,

I would like to object to the separate renewal and major amendment applications, Permit No. UR02827, by URI, Inc. to the Texas Commission on Environmental Quality. I have attached a copy of the notice. The reason for my objection is as follows:

> URI, Inc. has contaminated Water Well 24 (WW-24) located in the Garcia Hill area in Kleberg County in an area Northwest of PAA 3 in the Kingsville Dome. A complaint has been filed with TCEQ and an investigation is ongoing. The uranium content in the Water from WW-24 rose to over 1,000 mcg/l.

I am an affected person and own property directly north of PAA3 and I am requesting that the major amendment applications and renewal be denied.

Respectfully submitted,

Eleuterio L. Saenz

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

NOTICE OF APPLICATIONS AND PRELIMINARY DECISIONS FOR RENEWED AND AMENDED CLASS III INJECTION WELL PERMIT

PERMIT NO. UR02827

APPLICATIONS AND PRELIMINARY DECISIONS. URI, Inc. (URI) headquartered at 6950 S. Potomac Street / Suite 300 / Centennial, CO 80112, a uranium mining company, has submitted separate renewal and major amendment applications to the Texas Commission on Environmental Quality (TCEQ). The renewal application dated September 24, 2012 was for the renewal of TCEQ area Permit No. UR02827, which authorizes injection wells within the permitted area used for the continuance of groundwater restoration. The major amendment application dated December 12, 2012 requested amendment of the permit to provide authority to construct and operate injection wells for mining of uranium, which expired under the existing permit on September 1, 2012. Both of these applications are in accordance with 30 Texas Administrative Code (TAC) §§331.81 - 331.86 and 331.122. The applications were declared administratively complete on March 22, 2013. During the technical review process, URI submitted revisions to the applications to revise well plugging methods in the closure plan for Class III wells and to update the permit range table to include groundwater quality information from Class III wells located in Production Area 3.

The Kingsville Dome Mine is located approximately 8 miles southeast of the city of Kingsville, and 4 miles east of the town of Richardo on 641 FM1118, in Kleberg County, Texas. The following link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice: http://www.tceq.texas.gov/assets/public/hb610/index.html?lat=27.386944&lng=-97.775277&zoom=13&type=r. For exact location, refer to application.

The TCEQ Executive Director has completed the technical review of the applications and prepared a draft amended and renewal permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The applications, Executive Director's preliminary decision, and draft permit are available for viewing and copying at County Clerk's Office / Kleberg County Courthouse / 700 E. Kleberg Avenue / Kingsville, Texas 78363.

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting about these applications. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about these applications. TCEQ holds a public meeting if the Executive Director determines that there is a significant degree of public interest in the applications or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. **Unless the applications are directly referred for a contested case hearing, the response to comments, and the Executive Director's decision on the applications, will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for these applications. If comments are received, the mailing will also provide instructions for requesting reconsideration of the Executive Director's decision and for requesting a contested case hearing.** A contested case hearing is a legal proceeding similar to a civil trial in state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number; applicant's name and permit number; the location and distance of your property/activities relative to the facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; and, the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify an individual member of the group who would be adversely affected by the facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the applications and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission will only grant a contested case hearing on disputed issues of fact that are relevant and material to the Commission's decision on the applications. Further, the Commission will only grant a hearing on issues that were raised in timely filed comments that were not subsequently withdrawn.

EXECUTIVE DIRECTOR ACTION. The Executive Director may issue final approval of the applications unless a timely contested case hearing request or request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the Executive Director will not issue final approval of the permit and will forward the applications and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for these applications to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. To be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

AGENCY CONTACTS AND INFORMATION All public comments and requests must be submitted within 30 days from the date of newspaper publication of this notice either electronically at www.tceq.texas.gov/about/comments.html **or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105,**

P.O. Box 13087, Austin, Texas 78711-3087. If you choose to communicate with the TCEQ electronically, please be aware that your email address, like your physical mailing address, will become part of the agency's public record. For more information about this application or the permitting process, please call the TCEQ's Public Education Program, Toll Free, at 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from URI at 641 E. FM1118 / Kingsville, TX 78363 or by calling Mr. Dain McCoig, P.E. at (361) 595-5731.

Issued: March 04, 2015

E. Sacor
148 E. CR 2170
Kingsville, TX 78363

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Bridget C. Bohac, Chief Clerk

August 6, 2015

TCEQ. MC-105

P.O. Box 13087

Austin, Texas 78711-3087

REVIEWED
AUG 10 2015
By

UR 84705

H

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
2015 AUG 10 PM 3:00
CHIEF CLERKS OFFICE

Dear Ms. Bohac:

I am requesting a contested case hearing on URI's application for a renewal permit and major amendment.

My name is Mark M. Walsh.

My mailing address is 3931 Boyd Ave, Kingsville, Texas 78363.

My daytime phone number is 361-595-1265.

The applicant is URI, Inc. The permit number is URO2827.

I request a contested case hearing.

I would be adversely affected by the proposed permit and major amendment for the following reasons:

First, the permit and amendment would continue to reduce the quality of the water in the Goliad Aquifer in Kleberg County. For over 25 years, post uranium mining operations to restore the water to its original quality have not been achieved by URI. They say it has been restored but that is after various restoration amendments.

Second, additional mining in Kleberg County would require the use of millions of gallons of water and decrease available water for livestock and agricultural use.

Third, the proposed permit would allow URI to bring in uranium slurry from mining companies outside of Kleberg County and process yellow cake here at the Kingsville Dome plant. This would require millions of gallons of additional water. Also the transportation of numerous large trucks would result in more traffic accidents and increased damage to our County roads.

Finally, according to various hydrologists the extraction of millions of gallons of water in Kingsville area has resulted in the natural flow of the Goliad Aquifer toward the Baffin Bay being reversed. As a result the Aquifer water flow is slowly moving towards Kingsville. I live 3.9 miles from the mine.

Sincerely,

Mark M. Walsh

Mark M. Walsh

MW

M. A. Walsh
3931 Boyd St.
Kingsville, TX 78363

8/7/15

Attn: Clerk
Bohac

22 letters are included.
Thank you
Mark M. Walsh

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Ms. Bridget C. Bohac, Chief Clerk
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