

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 94-7515

Exam Date: 06/08/2020

1. Current Owner:
CDA HORSE RANCH LLC 22456 S ANDERSON LAKE RD HARRISON ID 83833
2. Accompanied by: Andrew Osmundson
Phone No: 208-755-0755
Address: Same as above
Relationship to permit Holder: Permit holder's representative

3. **SOURCE:**
GROUND WATER

Method of Determination: Arcmap and DRG.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
94-7514	ANDERSON LAKE	IRRIGATION	PERMIT – INPROCESS LICENSING REVIEW

Comments: Permit 94-7515 uses Anderson Lake water for irrigation beneficial use that overlaps this right's POU. 94-7515's water system infrastructure is separate from the groundwater system associated with this permit. Condition 132 applied to this permit at time of licensing describes that all irrigation in is covered under right 94-7514, and domestic use is for in home use only. There is no overlap concerns between rights.

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER L4 (SW¼ NE¼), Sec. 32, Twp 48N, Rge 03W, B.M. KOOTENAI County
Well D0046318 located at -116°44.635, 47°27.666.
GROUND WATER L4 (NW¼ NW¼), Sec. 4, Twp 47N, Rge 03W, B.M. KOOTENAI County
Well D0028419 located at -116°44.015, 47°27.521.
GROUND WATER L4 (SW¼ NE¼), Sec. 32, Twp 48N, Rge 03W, B.M. KOOTENAI County
Well 94-96-N-050-400 located at -116°44.566, 47°27.674.

Method of Determination: Garmin GPS was used to located the three wells identified above.

PLACE OF USE: STOCKWATER

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
47N	03W	4					X L3	X L4	X	X									
47N	03W	32			X L4	X L5													
47N	03W	33							X L4										

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
47N	03W	4						X L4											
48N	03W	32			X L4	X L5													

Method of Determination: Field exam and Arcmap aerial imagery.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

 X Indicate weir size/pipe as applicable.

 X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

 X Aerial Photo Attached (required for irrigation of 10+ acres).

 X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0046318	UNKOWN	5			
D0028419	UNKOWN	3			
94-96-N-050-400	UNKOWN	1.5			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: Three wells were installed with underground service lines that diverted directly to two 3,000 gallon storage reservoirs prior to distribution. Due to inadequate pipe requirements, a flow measurement was unable to be taken.

E. FLOW CALCULATIONS X Additional Computation Sheets Attached

Measured Method: Collaboration with Mr. Richard Agueros, President - United Pump & Drilling Company, derived pump information for the three wells. Well D0046318 had a pump performance test completed on 11/09/2006, with paperwork provided by Mr. Agueros. Mr. Agueros provided pump performance chart data on the other two wells, and theoretic pump equations were completed for wells D0028419 and 94-96-N-050-400 that support the findings provided in the chart data sheets. The flow calculations are as follows:

- Well D0028419 – Theoretic Pump Equation = 10.7 gpm or 0.02 cfs considering department rounding standards with a 3 HP pump estimated to be at a depth of 785 ft with a 45 PSI operating pressure.
- Well D0046318 – Pump performance test completed = 45 gpm or 0.10 cfs considering department rounding standards with a 5 HP pump estimated to be at a depth of 357 ft.
- Well 94-96-N-050-400 – Theoretic Pump Equation = 7.8 gpm or 0.02 cfs considering department rounding standards with a 1.5 HP pump estimated to be at a depth of 505 ft with a 45 PSI operating pressure.
- TOTAL FLOW RATE = 0.02 cfs (D0028419) + 0.10 cfs (D0046318) + 0.02 cfs (94-96-N-050-400) = **0.14 cfs**.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A, Irrigation for property covered under water right 94-7514.

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses:

Domestic annual volume =

- 0.6 af (main residence) + 0.6 af (apartment residence) + 1.8 af (3 bunk houses) = 3.0 af
- 20 employees (bathroom usage) x 20 gpd x 5 days per week x 52 weeks per year =
104,000 gal per year / 325,850 gal per af = 0.3 af considering department rounding standards.
- Total domestic annual volume = 3.0 (in-home use 5 homes) + 0.3 af (bathroom usage by employees) = **3.3 af**.

Stockwater annual volume =

- 300 head mixed stock x 12 gpd x 365 days per year = 1,314,000 gal per year / 325,850 gal per af = **4.0 af**, considering department rounding standards.

Maximum diversion volume = 3.3 af (Domestic annual volume) + 4.0 af (Stockwater annual volume) = **7.3 af**.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/8/2020 with the applicant's representative, Andrew Osmundson (Andy), showed water being diverted from three (3) groundwater wells for domestic and stockwater uses at the applicant's horse ranch. During the exam photographs and GPS data was collected for the three wells, but there was some confusion on how the groundwater system interacted with the irrigation system co-located at the applicant's property (reference 94-7514). The applicant's groundwater system infrastructure is inter-connected with all 3 wells, which feeds into 2ea 3,000 gallon storage reservoirs located near the main residence. One well, D0028419, is located near the three bunkhouses, and services those homes directly in addition to routing water to the storage reservoirs. Collectively, the three wells and two storage reservoirs service one main residence, an apartment located near the equestrian center, three bunk houses, drinking water & bathroom use for 20 full time employees, and stockwater use for 300 head of mixed stock.

Following the field exam, I collaborated with Mr. Richard Agueros, President - United Pump & Drilling Company, to obtain pump information for the three wells. Well D0046318 had a pump performance test completed on 11/09/2006, with paperwork provided by Mr. Agueros. Mr. Agueros provided pump performance chart data on the other two wells, and theoretic pump equations were completed for wells D0028419 and 94-96-N-050-400 that support the provided pump performance data sheets. Flow calculations are as follows:

- Well D0028419 – Theoretic Pump Equation = 10.7 gpm or 0.02 cfs considering department rounding standards with a 3 HP pump estimated to be at a depth of 785 ft with a 45 PSI operating pressure.
- Well D0046318 – Pump performance test completed = 45 gpm or 0.10 cfs considering department rounding standards with a 5 HP pump estimated to be at a depth of 357 ft.
- Well 94-96-N-050-400 – Theoretic Pump Equation = 7.8 gpm or 0.02 cfs considering department rounding standards with a 1.5 HP pump estimated to be at a depth of 505 ft with a 45 PSI operating pressure.
- TOTAL FLOW RATE = 0.02 cfs (D0028419) + 0.10 cfs (D0046318) + 0.02 cfs (94-96-N-050-400) = 0.14 cfs.

The maximum diversion rate recommended for licensing equals **0.14 cfs**. The domestic beneficial use department standard diversion rate for 5 homes equals **0.11 cfs**, which is applied as the domestic annual rate of diversion. The stockwater beneficial use department standard diversion rate for 300 head of mixed stock equals **0.07 cfs**, which is applied as the stockwater annual rate of diversion. The combined use(s) annual diversion rate equals 0.18 cfs, which is larger than the recommended value of 0.14 cfs, but the applicant is limited to pump(s) performance capacity found at time of field exam.

During field exam, photographs were taken showing 5 dwellings associated with domestic use, to include restroom services at the main equestrian center. Arcmap aerial imagery was used to trace out the domestic POU during licensing review. The applicant has a separate water right (94-7514) that accounts for all irrigation occurring at the equestrian center and domestic dwellings. Due to this, domestic volume is applied to in-home use and employee water usage only. The annual volume for domestic beneficial use is shown below:

- 0.6 af (main residence) + 0.6 af (apartment residence) + 1.8 af (3 bunk houses) = 3.0 af
- 20 employees (bathroom usage) x 20 gpd x 5 days per week x 52 weeks per year = 104,000 gal per year / 325,850 gal per af = 0.3 af considering department rounding standards.
- Total domestic annual volume = 3.0 (in-home use 5 homes) + 0.3 af (bathroom usage by employees) = **3.3 af**, which is recommended for licensing purposes.

The applicant uses plumbed-in stockwatering fountains, as well as portable stock tanks to provide water for their stock. During the exam, photographs were taken showing stockwater usage for 260 horses and 40 head of cattle. Andy stated that groundwater was the only source used for watering stock, as it provided a better quality of water than that of water from Anderson Lake. Andy stated portable stock tanks were used in the summer to provide water troughs in the outlying pastures that were not configured for plumbed-in water fountains. Arcmap aerial imagery was used during licensing review to trace out the stockwater POU, which is smaller than the permit approved shape. The stockwater POU shape excludes forested acreage on the property, and does not include that acreage in the stockwater POU due to stock tanks not being used outside the fenced pastures. Stockwater annual volume equals 300 head mixed stock x 12 gpd x 365 days per year = 1,314,000 gal per year / 325,850 gal per af = **4.0 af**, considering department rounding standards which is recommended for licensing purposes. The maximum diversion volume recommended for this license equals 3.3 af (domestic beneficial use) + 4.0 af (stockwater beneficial use) = **7.3 af**.

Two groundwater PODs were removed from the permit at time of licensing, as they were not developed in the permit's development period. The irrigation beneficial use was removed from this permit during licensing review, as field exam results identify all the irrigation on the applicant's property is covered under 94-7514. Conditions X02, 26A, R62, 046, and a text condition requiring interconnectivity between common delivery and storage systems were removed from the permit during licensing review. Condition 132 was updated to more accurately describe domestic use limitations. All other

conditions on the permit shall remain on the license. Overlap concerns: Permit 94-7515 uses Anderson Lake water for irrigation beneficial use that overlaps this right's POU. 94-7515's water system infrastructure is separate from the groundwater system associated with this permit. Condition 132 applied to this permit at time of licensing describes that all irrigation in is covered under right 94-7514, and domestic use is for in home use only. There is no overlap concerns between rights.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
STOCKWATER	01/01 to 12/31	0.07 CFS	4.0 AF
DOMESTIC	01/01 to 12/31	0.11 CFS	3.3 AF
<u>Totals:</u>		0.14 CFS	7.3 AF

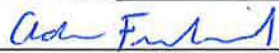
2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name  Date 1/28/2021

Reviewer  Date 2/1/2021

State of Idaho
Department of Water Resources
Attachment to Field Exam
94-7515

DOMESTIC system diagram.



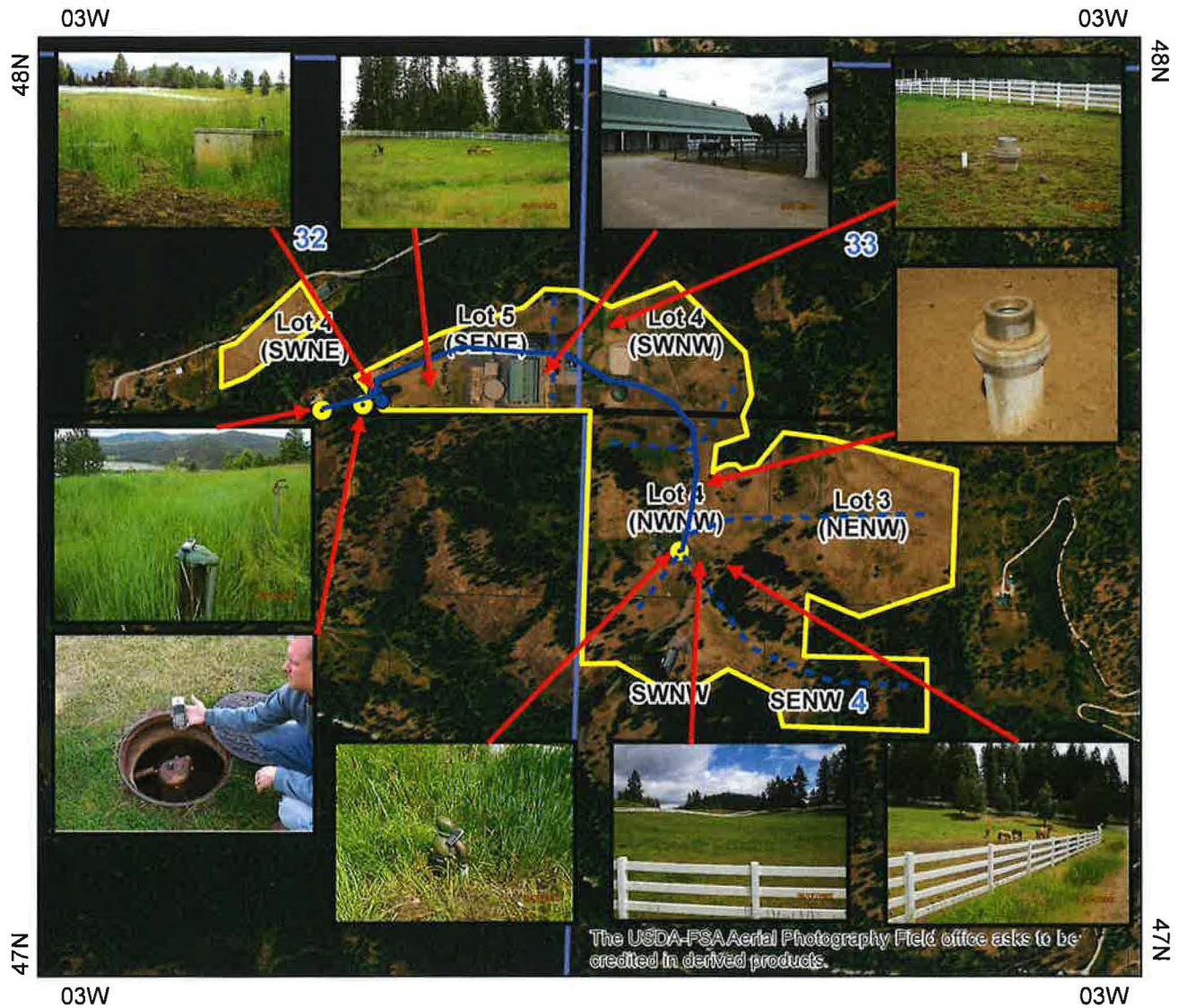
- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.05 0.1 0.2 Miles



State of Idaho
Department of Water Resources
Attachment to Field Exam
94-7515

STOCKWATER system diagram.



- 03W 03W 47N
- Point of Diversion
 - Place Of Use Boundary
 - Townships
 - PLS Sections
 - Quarter Quarters

0 0.15 0.3 0.6 Miles



Clark Agueros

From: Clark Agueros <clark@unitedcrown.com>
Sent: Friday, September 04, 2015 1:29 PM
To: 'blackrockhorses@gmail.com'
Cc: 'Richard Agueros'
Subject: BR Ranch Well Information
Attachments: Clark Agueros.vcf; Scan0001.pdf

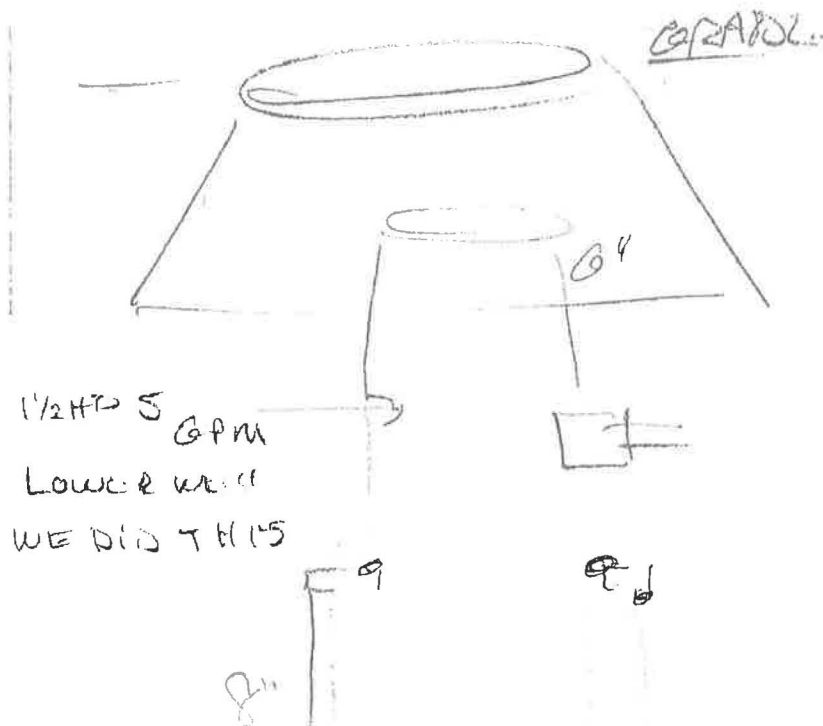
Andy, see the attached well log documents. Only one flow test was done that I could find and it's also in the attachment.

- Well #2 1997 1 1/2 hp 5gpm well pump 94-96-N-050-400 515ft -
- Well#3 2003 3hp 8gpm well pump 10gpm - 00028419 - 800 -
- Well#4 2006 5hp 45gpm well pump 00046318 340 -
- Lake Irrigation Pump 15hp 150gpm
- Lagoon Irrigation Pump's 10hp 85gpm x2

Hope this helps.

Clark Agueros
United Crown Pump & Drilling
Purchasing and Sales

3125 W Hayden Ave
Hayden, ID 83835



IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Office Use Only		
Inspected by		
Twp	Rge	Sec
1/4	1/4	1/4
Lat	Long	

1. WELL TAG NO. **D0028419**

DRILLING PERMIT N **803694**

Other IDWR No

RECEIVED

JUN 30 2003

2. OWNER:

IDWR/North

Name **Black Rock Ranch**

Address **P O Box 3070**

City **Coeur d'Alene**

State **ID**

Zip **83816**

3. LOCATION OF WELL by legal description:

N	Twp	48N	North	☒ or	South	☐
Rge	03W	East	☐ or	West	☒	
Sec	05	1/4	NW	1/4	NW	1/4
		10 Ac	40 Ac	160 Ac		
Gov't Lot		County	Kootenai			
Lat		Long				

Well Canyon Road

City

Lot Blk Sub. Name (see next line)

4. USE:

- ☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other

5. TYPE OF WORK check all that apply (Replacement etc.)

- ☒ New Well ☐ Modify ☐ Abandonment ☐ Other

6. DRILL METHOD

- ☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other

7. SEALING PROCEDURES

SEAL/FILTER PACK			Amount	Method
Material	From	To	Sacks/Lbs	
Bentonite Gran.	0	63	9 Sacks	Pour-in

Drive Shoe Used? ☐ Y ☒ N Shoe Depth(s)

Drive Shoe Seal Tested? ☐ Y ☒ N How?

8. CASING/LINER

Diam	From	To	Gauge	Material	Casng	Liner	Weld Thrded
8	+2	63	0.250	Steel	☒	☐	☒
6	1	404	0.250	Steel	☒	☐	☒
4	200	800	0.160	PVC	☐	☒	☒

Length Headpipe

Length Tailpipe

9. PERFORATIONS/SCREENS

Perforations?

Method

☒ Screens?

Screen Type **PVC**

From	To	Slot	Nmbr	Diam	Material	Casng	Liner
780	800	20		4	PVC	☐	☒
						☐	☐
						☐	☐

10. STATIC WATER LEVEL or ARTESIAN PRESSURE

380 ft. below ground. Artesian pressure **lb.**

Depth flow encountered **410 - 730** ft. Describe access port or

control devices: **Steel Cap Welded**

11. WELL TESTS:

☐ Pump

☐ Bailor

☒ Air

☐ Flowing Artesian

Yield gal./min.	Drawdown	Pump Level	Time
7.5	100%	795	1 Hour

Water Temp.

Cold

Bottom hole temp.

Cold

Water Quality test or comments: (below) Depth first Water Encountered **410**

Clear, Cold, No Smell

12. LITHOLOGIC LOG (Describe repairs or abandonment)

Bore Diam	From	To	Remarks: Lithology, Water Quality and Temperature	Water
				Y N
10	0	1	Topsoil	☐ ☒
10	1	14	Clay - Brown	☐ ☒
10	14	23	Clay - Orange	☐ ☒
10	23	50	Clay - Brown	☐ ☒
10	50	61	Basalt & Clay - Soft	☐ ☒
10	61	63	Basalt - Black - Medium	☐ ☒
8	63	280	Basalt - Black - Medium	☐ ☒
8	280	290	Clay & Sand - Brown/Orange	☐ ☒
8	290	300	Basalt - Black & Clay - Brown	☐ ☒
8	300	310	Basalt - Black	☐ ☒
8	310	390	Shale - Tan/Brown - Broken	☐ ☒
8	390	404	Shale - Tan/Brown - Medium	☐ ☒
8	404	470	Shale - Tan/Gray - Medium-4 GPM @ 410'	☒ ☐
6	470	592	Shale - Green/Gray	☐ ☒
6	592	721	Shale - Green/Blue	☐ ☒
6	721	730	Shale - Blue/Gray - Soft-3.5 GPM	☒ ☐
6	730	800	Shale - Blue/Gray	☐ ☒

Completed Depth **800** (Measurable)

Date: Started **6/13/03** Completed **6/19/03**

13. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm **United Drilling Inc.**

Firm No **414**

Name

Firm Official and

Jason C. Beckham

Date **6/20/03**

Supervisor or Operator **Jason C. Beckham**

Date **6/20/03**

48N 3W 5

4" TRI-SEAL PUMPS - 10 GPM

800' well D 28419

Pump

2003

12-4 GPM @ 80 PSI

PERFORMANCE

HP	PSI	Depth to Pumping Water Level (Lift) in Feet. Shaded Area indicates Most Efficient Performance																				Shut-Off (ft)					
		20	40	60	80	100	120	140	160	180	200	240	260	300	350	400	440	480	500	600	700		800	900	1000		
1/2	0				14	13	12	11	10	9	7														244		
	20	14	13	13	12	11	10	8	6	3																	
	30	13	13	12	11	10	8	6	3																		
	40	13	12	11	10	8	6	3																			
	50	12	11	9	8	5	3																				
	60	11	10	7	4																						
	80	8	6	4																							
Shut-off PSI		97	88	80	71	62	54	45	36	28	19																
3/4	0					14	13	13	12	11	10	7	8	4											338		
	20		14	14	13	12	12	11	10	9	8	6	4														
	30	14	14	13	12	12	11	10	9	8	7	3															
	40	14	13	12	12	11	10	9	8	7	6																
	50	13	12	11	11	10	9	8	7	5	3																
	60	12	11	11	10	9	8	6	5																		
	80	11	10	9	8	6	5																				
Shut-off PSI		137	129	120	111	103	94	85	77	68	59	42	34	16													
1	0						14	13	13	12	11	10	9	7	4										444		
	20					14	13	13	12	11	11	9	9	7	3												
	30					14	13	13	12	11	11	10	9	8	6												
	40			14	13	13	12	11	11	10	9	8	7	5													
	50		14	13	12	12	11	11	10	9	8	7	6														
	60	13	12	12	11	11	10	10	9	8	8	5	4														
	80	12	12	11	10	10	9	8	7	6	5																
Shut-off PSI		183	174	157	148	140	131	123	114	105	97	79	71	53	27	10											
1.5	0							14	13	13	12	12	10	9	9	8	7								615		
	20						14	13	13	12	12	11	11	9	8	7	6	5									
	30						14	13	13	12	12	11	11	10	8	8	6	5	4								
	40					14	13	13	12	12	12	11	10	10	8	7	6	4									
	50				14	13	13	12	12	12	11	10	10	9	8	6	5	3									
	60		14	13	13	12	12	11	11	11	10	9	9	7	6	4											
	80	13	13	13	12	12	11	11	11	10	10	9	9	8	6	3											
Shut-off PSI		257	248	240	231	222	214	205	197	188	179	162	153	136	110	93	75	41	32								
2	0											14	13	13	12	11	10	10	9	6				770			
	20											14	13	13	12	11	10	9	9	8	5						
	30											14	13	13	12	12	10	10	9	8	8	4					
	40											14	13	13	12	12	11	10	9	9	8	7	3				
	50											14	13	13	12	12	11	11	10	9	8	7	6				
	60					14	13	13	13	12	12	11	11	10	9	8	7	6	5								
	80			14	13	13	13	12	12	12	11	11	10	9	8	8	6	4	4								
Shut-off PSI		324	316	307	298	290	281	272	264	255	246	229	220	203	177	160	143	125	117	73							
3	0														14	13	13	12	12	11	9	7	5		1034		
	20														14	13	13	12	12	12	10	8	6	3			
	30														14	14	13	13	12	12	11	10	8	5			
	40														14	14	13	13	12	12	11	11	9	7		4	
	50														14	14	14	13	12	12	11	11	9	7		4	
	60														14	14	14	13	12	12	11	11	10	9		6	3
	80														14	14	13	13	12	12	11	11	10	8		5	
Shut-off PSI		438	430	421	413	404	395	387	378	369	361	343	335	317	291	274	257	240	231	188	144	101	58				

NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.

HP	PSI	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
5	0				14	13	13	12	11	11	10	9	8	6	5
	20				14	13	12	12	11	10	9	8	7	6	4
	30				14	13	12	12	11	10	9	8	7	5	4
	40				14	13	12	11	11	10	9	8	7	5	3
	50			14	13	13	12	11	10	9	9	7	6	5	3
	60			14	13	13	12	11	10	9	8	7	6	4	
Shut-off PSI		670	626	583	540	497	453	410	367	324	280	237	194	151	107

NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only			
Well ID No.			
Inspected by			
Twp	Rge	Sec	
1/4	1/4	1/4	
Lat:	:	Long:	:

1. WELL TAG NO. D 0046318
DRILLING PERMIT NO. 843289
Water Right or Injection Well No. _____

CORRECTED REPORT**2. OWNER:**

Name Black Rock Ranch
Address PO Box 3070
City Coeur d' Alene State ID Zip 83814

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 48 North ☒ or South ☐
Rge. 3 East ☐ or West ☒
Sec. 32 1/4 SE 1/4 NE 1/4
Gov't Lot _____
County Kootenai
Lat: _____ Long: _____
Address of Well Site Bell Canyon Rd.

City Harrison
(Draw at least name of road + Distance to Road or Landmark)
Lt. _____ Blk. _____ Sub. Name _____

4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
Bentonite	0	40	11 bags	Dry Pour
Granular				

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) _____
Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	3	387	.25	Steel	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____
Packer ☐ Y ☐ N Type _____

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method Torch
Screen Type & Method of Installation _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
367	387	1/4	40	6	Steel	☒	☐
						☐	☐
						☐	☐

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

270 ft. below ground Artesian pressure _____ lb.
Depth flow encountered 375 ft. Describe access port or control devices: _____
Steel cap welded

12. WELL TESTS:

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
45-50	100%	390	2 Hours

Water Temp. Cold Bottom hole temp. Cold

Water Quality test or comments: Clear, cold no smell

Depth first Water Encounter 375

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	Y	N
8	0	1	Top soil			X
8	1	10	Basalt & Clay mix soft			X
8	10	68	Basalt black soft			X
8	68	123	Basalt black hard			X
8	123	128	Basalt clay mix brown			X
8	128	145	Basalt & Clay brown medium			X
8	145	150	Basalt broken red with clay			X
8	150	194	Black/gray clay firm			X
8	194	215	Basalt black hard			X
8	215	285	Clay black/brown medium			X
8	285	375	Basalt black hard			X
8	375	385	Basalt black broken	X		
8	385	390	Basalt black hard			X

RECEIVED**JAN 19 2007****IDWR/North****RECEIVED****NOV 20 2006****IDWR/North**

Completed Depth 390 FT. (Measurable)

Date: Started 11-06-06 Completed 11-08-06

14. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name United Pump & Drilling Firm No. 636

Principal Driller Jason Beckham Date 11-09-06

and
Driller or Operator II _____ Date _____

Operator [Signature] Date 11-17-06

Principal Driller and Rig Operator Required.
Operator I must have signature of Driller/Operator II.



WELL TEST

Customer: Black Rock Ranch **Address:** PO Box 3070
Coeur d'Alene ID 83816

Job Location: Black Rock Ranch **Phone No:** 208-755-0755
Well #4 at new home site

WELL DATA

Tag #: well D0046318 **Test Pump Used:** 5 HP, ⁴⁵24 GPM
Total Depth: 390' **Pump Setting:** 357'
Static Water Level: 277' **Date of Test:** 11/09/06
Driller Tested: 45 GPM

Time	Flow Rate Gallons Per Minute	Pressure Per Square Inch	Water Quality	Static Level
1:00 PM	50.00	0	Rust Color- no solids	277'
1:15 PM	50.00	0	Light Color	Unknown
1:30 PM	50.00	0	Light Color	Unknown
1:45 PM	50.00	0	Light Color	Unknown
2:00 PM	50.00	0	Light Color	Unknown
2:15 PM	42.86	0	Light Color	Unknown
2:30 PM	42.86	5	Light Color	Unknown
2:45 PM	42.86	5	Light Color	Unknown
3:00 PM	42.86	5	Clear	Unknown
3:15 PM	42.86	5	Clear	Unknown
3:30 PM	42.86	5	Clear	Unknown
3:45 PM	42.86	5	Clear	Unknown
4:00 PM	42.86	5	Clear	Unknown
4:15 PM	42.86	5	Clear	354'
4:30 PM	37.50	37	Clear	354'
4:45 PM	37.50	37	Clear	354'
5:00 PM	37.50	37	Clear	354'

TEST SUMMARY: 44.01 Was the average gallons per minute produced by this well over the four-hour test period.

Certified by:

Richard A. Agueros, President
UNITED PUMP COMPANY

WELL DRILLER'S REPORT 096939
Use Typewriter or Ballpoint Pen

Use Typewriter or Ballpoint Pen

096939

Inspected by _____
Twp _____ Rge _____ Sec _____
1/4 1/4 1/4

Lat: : : Long: : :
☒ Air ☐ Flowing Artesian

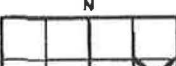
Other IDWR No. _____

Name WALKER LAND DEVELOPMENT 2012

Address **1660 N. GATE WAY BLVD**

City **FRESNO** State **CA** Zip **93727**

Sketch map location must agree with written location.


 Twp. 48N North ☒ or South ☐
 Rge. 03W East ☐ or West ☒
 Sec. 32 1/4 S/E 1/4 N/E 1/4
 Gov't Lot _____ County Kootenai
 Lat: _____ Long: _____
 Address of Well Site ANDERSON LAKE
 City HARRISON
 (Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other_____

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
Bentonite	0	-40	12 sacks	pour in

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 91'

Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casting	Liner	Welded	Threaded
6"	4 1/4"	4 1/2"	.025	Steel	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

Perforations	Method	perforator
1		
2		
3		
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7		
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99		
100		

Screens		Screen Type
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
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92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

From	To	Slot Size	Number	Diameter	Material	Casting	Unit
398	420		200		steel	☒	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

ft. below ground Artesian pressure _____ lb.

Depth flow encountered 463/455 ft. Describe access port or

control devices: steel cap welded

11. WELL TESTS:

☐ Pump ☐ Bailer

Yield gal./min	Drawdown	Pumping Level	Time
16+ gpm	100%		2 hrs.

Water Temp. cold Bottom hole temp. cold

Water Quality test or comments: clear, cold, no smell

Depth first Water Encountered 403

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

[illegible]

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name **United Drilling Inc.** Firm No. **414**

Firm Official  Date 12/06/00

and
Supervisor or Operator **Jason C. Beckham** Date **12/04/06**

(Sign once if Firm Official & Operator)

control devices: **SENE 32 48N 34**

FOR MORE WHITE COPY WATER RESOURCES

Well - 94-96-N-Ø5Ø-4ØØ
515' w/SCREENS

4" TRI-SEAL PUMPS - 5 GPM

TO RESERVOIR

7-6 GPM

PERFORMANCE

1997 WELL

HP	PSI	Depth To Pumping Water Level (ft) in Feet																				Shut-off Areas Indicate Most Efficient Performance									
		20	40	60	80	100	120	140	160	180	200	240	260	300	350	400	440	480	500	600	700	800	900	1000	Shut-off (ft)						
1/2	0							7	7	6	6	5	4													315					
	20					8	7	6	6	5	5	3	2																		
	30				7	7	6	6	5	5	4	2																			
	40			7	7	6	6	5	5	4	3																				
	50		7	6	6	6	5	5	4	2																					
	60	7	7	6	6	5	4	4	2																						
	80	6	6	5	4	3																									
Shut-off PSI		127	119	110	101	93	84	75	67	58	49	32	23																		
3/4	0										7	7	7	6	5	4	3								5495						
	20								7	7	7	6	6	5	4	3															
	30							7	7	7	6	6	6	5	3																
	40					7	7	7	6	6	6	5	4	2																	
	50					7	7	7	6	6	6	5	5	4																	
	60				7	7	7	6	6	6	5	5	4	3																	
	80		7	7	7	6	6	6	5	5	4	3	3																		
Shut-off PSI		205	196	188	179	171	162	153	145	136	127	110	101	84	58	41	23														
1	0											8	7	6	6	5	4	4							615						
	20											7	7	6	5	4	3														
	30										7	7	7	6	5	5	3	2													
	40									7	7	7	6	5	4	3															
	50								7	7	7	7	6	6	4	3															
	60								7	7	7	7	6	6	5	4															
	80							7	7	7	6	6	5	5	4																
Shut-off PSI		257	248	240	231	222	214	205	197	188	179	162	153	136	110	93	75	58	49												
1.5	0													7	7	7	6	5	4	2					835						
	20													7	7	7	6	6	5	3											
	30													7	7	7	6	6	6	4	3										
	40													7	7	7	6	6	6	5	4	2									
	50													7	7	7	6	6	5	5	3										
	60													7	7	7	6	6	5	5	5	3									
	80													7	7	7	6	6	5	5	4	2									
Shut-off PSI		352	344	335	326	318	309	300	292	283	274	257	249	231	205	188	171	153	145	101	58	15									
2	0															7	7	7	6	5	4	3			1040						
	20															7	7	7	7	6	5	4	2								
	30															7	7	7	7	6	6	5	3								
	40															7	7	7	7	6	6	5	3								
	50															7	7	7	7	6	6	5	4	3							
	60															7	7	7	7	6	6	6	5	4		3					
	80															7	7	7	6	6	6	5	3								
Shut-off PSI		441	432	424	415	406	398	389	381	372	363	346	337	320	294	277	259	242	233	190	147	104	60								

NOTES: Performance shown does not include friction loss in the drop pipe. All performance data is based on rated motor nameplate voltage.

THEORETICAL PUMPING EQUATION FOR WR# 94-7515

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to be at 785 ft, and running at 45 psi.

PUMP EQUATIONS

WATER RIGHT No. 94-7515

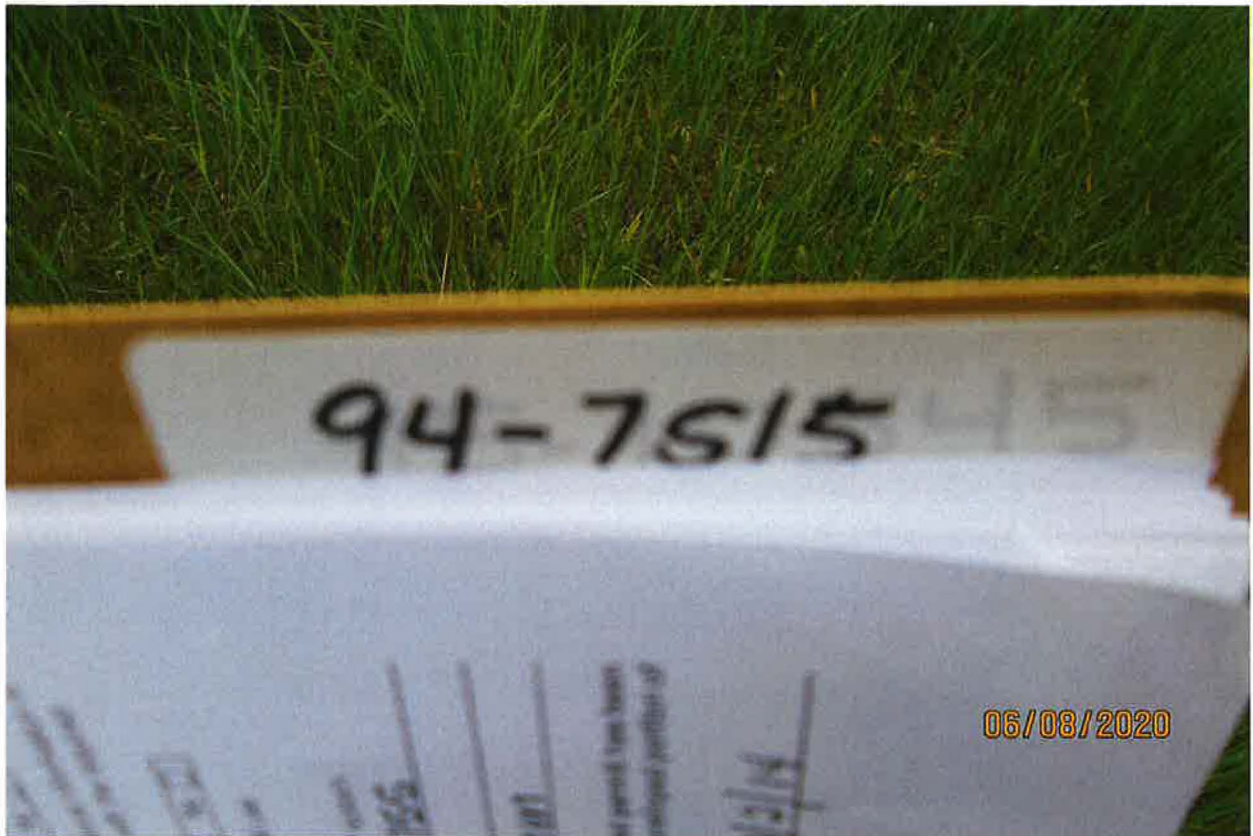
D0028419		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	3	889.0816	0.8	785	45
Q = 0.024 cfs 10.7 gpm						

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to be at 505 ft, and running at 45 psi.

PUMP EQUATIONS

WATER RIGHT No. 94-7515

94-96-N-050-400		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	1.5	609.0816	0.8	505	45
Q = 0.017 cfs 7.8 gpm						



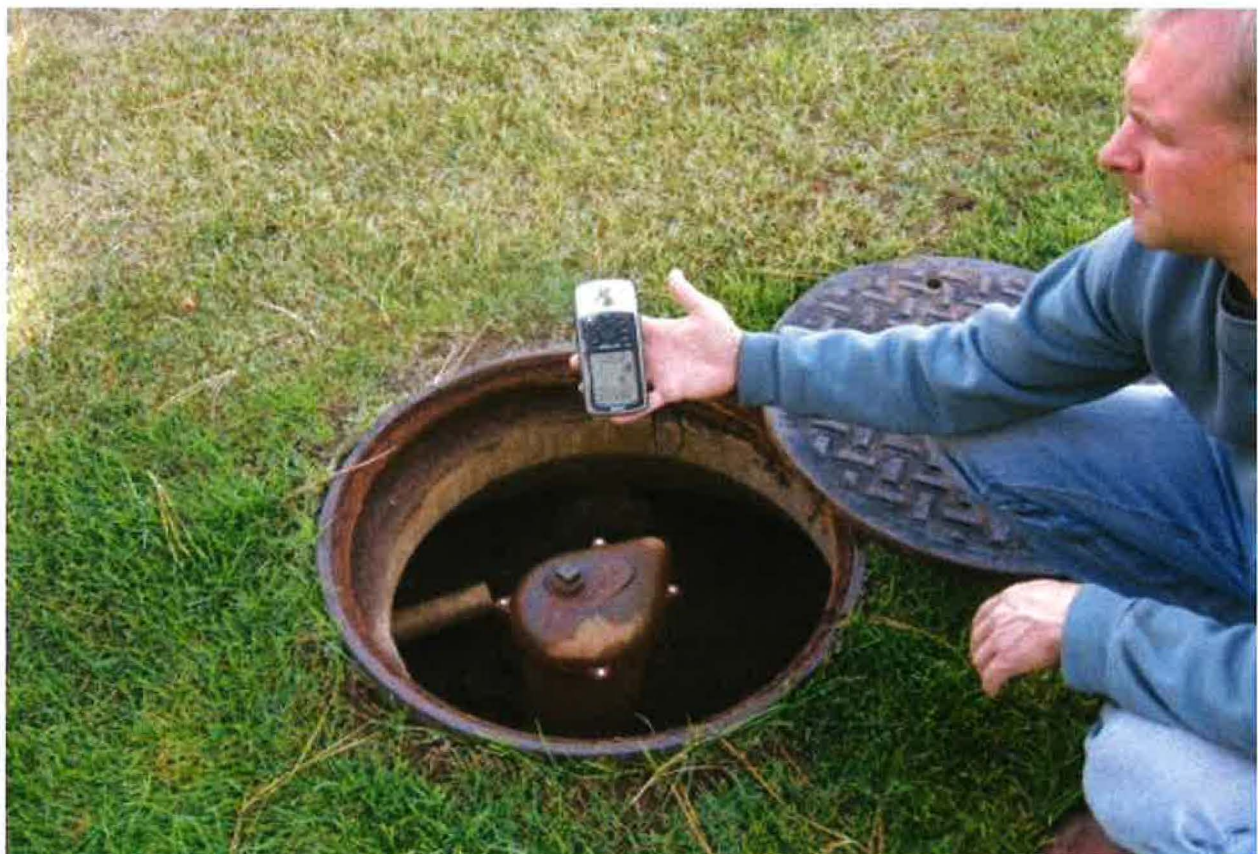
94-7515 – FIELD EXAM DATE 6/8/2020



POD – WELL D0046318 (CO-LOCATED WITH MAIN RESIDENCE)



POD – WELL D0046318



POD – OLD WELL NO D-TAG (CO-LOCATED WITH MAIN RESIDENCE)



POD – WELL D0028419 (CO-LOCATED WITH BUNK-HOUSES)



WELL D-TAG D0028419



2 EACH 3,000 GALLON VAULTED STORAGE TANKS



DOMESTIC POU – MAIN RESIDENCE



DOMESTIC POU – APARTMENT (CO-LOCATED WITH EQUESTRIAN CENTER)



DOMESTIC POU – RESTROOM FACILITIES LOCATED IN MAIN EQUESTRIAN CENTER BUILDING



DOMESTIC POU – 3 EA BUNK-HOUSES (1 GARAGE CO-LOCATED WITH ROW OF HOMES)





STOCKWATER POU – EQUESTRIAN CENTER BUILDINGS





STOCKWATER POU





STOCKWATER POU





STOCKWATER POU – EXAMPLE OF PLUMBED IN WATER TROUGHS

