CTM-134

STATE OF NEVADA
DIVISION OF WATER RESOURCES
WELL DRILLER'S REPORT

OFFICE USE ONLY
Log No. 119745
Permit No.
Basin 087

PRINT OR TYPE ONLY
DO NOT WRITE ON BACK

Please complete this form in its entirety in accordance with NRS 534.170 and NAC 534.340

NOTICE OF INTENT NO. 69065

1. OWNER WASHOE County
MAILING ADDRESS 4930 Energy Way Reno NV 89502

ADDRESS AT WELL LOCATION EAST SIDE OF KIETZKE BETWEEN Prosperity & Mill
Subdivision Name: County: WASHOE

2. LOCATION SW ¼ SW ¼ Sec 7 T 19 N S R 20 E
PERMIT/WAIVER No. Issued by Water Resources Parcel No.

Latitude 39.5227179 UTM E ☐ NAD 27
Longitude -119.7879747 N ☒ NAD 83/WGS 84

3. WORKED PERFORMED
☒ New Well ☐ Replace ☐ Recondition
☐ Deepen ☐ Other

4. PROPOSED USE
☐ Domestic ☐ Irrigation ☐ Test
☐ Municipal/Industrial ☒ Monitor ☐ Stock

5. WELL TYPE
☐ Cable ☐ Rotary ☐ RVC
☐ Air ☒ Other SONIC

6. LITHOLOGIC LOG

Material	Water Strata	From	To	Thickness

Nad 27
39.522807° N
119.786951 W

Date started: 3-18, 20 14
Date completed: 3-18-, 20 14

7. Water Level
Static water level: 47' feet below land surface
Artesian Flow: G.P.M. P.S.I.
Water Temperature: °F
Quality:

8. WELL TEST DATA
TEST METHOD: ☐ Bailer ☐ Pump ☐ Air Lift

G.P.M.	Draw Down (Feet Below Static)	Time (Hours)

9. WELL CONSTRUCTION
Depth Drilled 71 Feet Depth Cased 60 Feet

HOLE DIAMETER (BIT SIZE)

		From		To	
10	Inches	0	Feet	71	Feet
	Inches		Feet		Feet
	Inches		Feet		Feet

CASING SCHEDULE

Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
2	.932	.218	0	60
2	.932	.218	0	44

Perforations:
Type of perforation Slot
Size of perforation .020
From 39 feet to 44 feet
From 55 feet to 60 feet
From feet to feet
From feet to feet
From feet to feet

Annular Seal: ☒ Yes ☐ No
☒ Neat Cement 0 to 35 ☒ Pumped ☐ Poured
☐ Cement Grout to ☐ Pumped ☐ Poured
☐ Concrete Grout to ☐ Pumped ☐ Poured
☐ ≥30% Bentonite Grout to ☐ Pumped ☐ Poured

Gravel Pack: ☒ Yes ☐ No 38 to 45 ☐ Pumped ☒ Poured
Type: #3 SAND ~~54~~ ~~62~~ 53-65
Bentonite Chips: ☒ Yes ☐ No 35 to 38 ☐ Pumped ☒ Poured
Type: 3/8" 45 ~~753~~ ~~62~~

10. DRILLER'S CERTIFICATION
This well was drilled under my supervision and the report is true to the best of my knowledge.
Name CASCADE Drilling LP
Contractor
Address 3000 DeLutet
Contractor
West SACRAMENTO CA 95691
Nevada contractor's license number issued by the State Contractor's Board 73966
Nevada driller's license number issued by the Division of Water Resources, the on-site driller 2425
Signed Jason Hemel
By driller performing actual drilling on-site or contractor
Date 3-19-2014

(Rev 05-06)

USE ADDITIONAL SHEETS IF NECESSARY

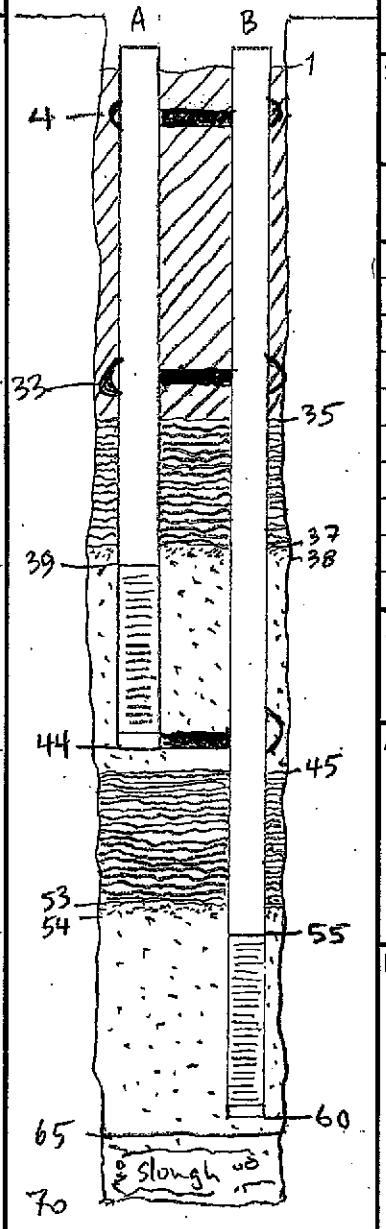
(NSPO 3-08) (O) 627

log 119748

CONSTRUCTION SUMMARY FOR WELL

Project: Vassar E. Plumb PSA	Job #: 132867.03	Well: CTM 134
Location / Coords:		
Driller / Rig: Cascade / Spider	Personnel: B. Kearney	Elevation: —
Water Level: 47' (14:00, 3/17/14		Borehole Depth: 31'
Borehole Diameter: 10"		Drilling Fluid: N/A
Bit(s): sonic core barrell		

DEPTH



Casing: 2" dia. Sch. 80 PVC

Screen: 2" dia. Sch. 80 PVC w/0.020-inch aperture slots

Casing String(s):

	From -- To	Screened Interval
(A)	0.5 - 44	39 - 44
(B)	0.5 - 60	55 - 60

Filter Pack: #3 Cemex Lapis Lustre (38-45, 54-65) 12, 10 sacks; #0/30 (37-38, 53-54) 1, 1 sack

Annular Seal(s): Cetco medium chips (35-37, 45-53)
35-37: 3 sacks
45-53: 5 sacks

Notes:
① hand dug 0-5'
② threaded end caps on bottom of casing strings
③ spacer & centralizer at 44', spacer & 2 centralizers at 33', spacer & 2 centralizers at 4'
④ neat cement grout 1-35'

CTMRD PROGRAM MONITORING WELL STRATIGRAPHIC LOG

Drilling Specifications:

Drilling Contractor: Cascade
Drilling Method: Sonic
Rig: Spider
Driller: Jason Hernandez
Boring Diam.: 10 in TD: ____ ft
Development Method: ____
Date Start: ____ End: ____

Well Specifications:

Location Description: W. side of Sunshine near int. w/ Zinc
Coordinates: — ft N — ft E
Elevation: — ft Survey Method: —
Reference Pt. Description: ____
Well TD: ____ ft bgs Well Diameter: ____ in
Screen Interval: ____ ft bgs
First Water: ____ ft bgs Static Water at completion: ____ ft bgs

WELL ID: CTM 134
Project: Mill Kietzke PSA
Page 1 of 2
LOGGED BY: B. Kearney

Depth	Engineering Properties: Density/ Consistency	Moisture	Plasticity	Cohesiveness	Transmissivity	1° Description: Color	Boulder %	Cobble %	Gravel %	Sand %	Silt %	Clay %	USCS Classification	2° Effects: Weathering/ Oxidization	Depositional Properties: Grading	Angularity	Matrix/Clast-Supported	Clast Lithology	Sedimentary Structure	Depositional Environment	Stratigraphic Contact	Graphics: PID/Samples	Lithology	Description
0																								
	L	D	NP	C	M	10YR 4/3	10	20	20	20	20	10	GM		WG	SR-R	MX		M	GOW	G			brown silty gravel w/ sand, cobbles to 10", gravel vf-vc, sand vf-vc
5 3/14																						48.7		
	VL	D	NP	NC	H	10YR 5/2	20	30	20	10	10	10	GM		WG	SR	C		M	GOW	G			boulder & greyish brown silty gravel w/ sand incl. boulders & cobbles
10																						199?		
																						21.2		
15	VL	M	NP	NC	H	10YR 5/2	–	10	30	40	10	10	GM		WG	SR-R	MX		M	GOW	G			12.5-15' was dropped down the borehole (no recovery) greyish brown silty gravel w/ sand, gravel vf-vc, sand vf-vc
	VL	M	NP	NC	H	?	tr	40	50	10	–	–	GP		PGu	R	C		M	GOW	S			greyish brown poorly graded gravel, cobbles, & vc gravel
20	VL	M	NP	NC	H	10YR 4/3	–	tr	30	60	10	–	SP-SM		PGu	R-SR	MX		M	FLUV	S	44.3		brown poorly graded sand w/ silt & gravel, sand vf-vc, gravel vf-vc
	VL	M	NP	C	M	10YR 4/3	–	10	50	30	10	–	GW-GM		WG	R	C		M	GOW	G			brown well graded gravel w/ silt & sand, gravel vf-vc, sand vf-vc
25 3/14	VL	M	NP	NC	H	10YR 5/2	20	30	30	10	10	–	GW-GM		WG	R-SR	MX		M	GOW	G	35.4		greyish brown well graded gravel w/ silt, gravel vf-vc, incl. cobbles to 10" & boulders
	VL	M	NP	NC	H	10YR 4/3	–	–	10	90	–	–	SP		PGu	SR	MX			FLUV	G			brown poorly graded sand m-vc
30																						1.8		

Note: Description section to be used to complement and provide additional information to supplement column descriptors to the left, identify any samples collected, and describe any particulars associated with drilling behavior.

Reg 11 9/14/18

CTMRD PROGRAM MONITORING WELL STRATIGRAPHIC LOG

WELL LOCATION: W. side of Sunshine near int., w Zinc

LOGGED BY: B. Kearney

Well ID: CTM 134

Project: Mill Kietzke PSA

Page 2 of 2

Depth	Engineering Properties: Density/ Consistency	Moisture	Plasticity	Cohesiveness	Transmissivity	1º Description: Color	Boulder %	Cobble %	Gravel %	Sand %	Silt %	Clay %	USCS Classification	2º Effects: Weathering/ Oxidization	Depositional Properties: Grading	Angularity	Matrix/Clast-Supported	Clast Lithology	Sedimentary Structure	Depositional Environment	Stratigraphic Contact	Graphics: PID/Samples	Lithology	Description
																								as above
	VL	M	NP	NC	H	10YR 5/2	tr	10	40	30	20	-	GM		WG	SR	MX		M	GOW	G	8.5		grayish brown silty gravel w/ sand, gravel vf-vc, sand vf-vc
35	VL	M	NP	NC	H	10YR 4/3	-	-	20	80	-	-	SP		PGu	SR	MX		M	FLUV	S	11.2		brown poorly graded sand w/ gravel, sand m-vc, gravel vf-c
40	VL	M	NP	NC	H	10YR 4/3	-	tr	40	60	-	-	SP		PG	SR	MX		M	FLUV	G	21.5		brown poorly graded sand w/ gravel, sand vf-vc, gravel, vf-vc
45	VL	M	NP	NC	H	10YR 4/3	-	-	20	60	20	-	SM		PGu	SR-SA	MX		M	FLUV	G	5.0		brown silty sand w/ gravel, sand vf-vc, gravel vf-m
50	VL	W	NP	NC	H	10YR 5/3	-	-	30	40	20	10	SM		WG	SR-R	MX		M	"	G	1.4		brown silty sand w/ gravel, sand vf-vc, gravel vf-vc
55	VL	W	NP	NC	H	10YR 5/3	-	-	30	50	10	10	SM		WG	SR-R	MX		M	"	G	3.2		brown silty sand w/ gravel, sand vf-vc, gravel vf-vc
60	L	W	NP	C	H-M	10YR 6/3	-	tr	40	30	20	10	GM		WG	SR-R	MX		M	"	G	1.3		pale brown silty gravel w/ sand, gravel vf-vc, sand vf-vc
65																						3.7		
70	L	W	NP	C	H-M	10YR 5/3	-	10	40	30	10	10	GM		WG	R-SR	MX		M	FLUV	G	4.7		brown silty gravel w/ sand, gravel vf-vc, sand vf-vc

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Log 119746