LINDBERG GEOLOGIC CONSULTING
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August 29, 2022

Project No: 0474.00

High Grade 007, LLC
Mr. Neven Kalas
950 Detroit Avenue, Ste 1-B
Concord, California 94518

Subject: Hydrologic Isolation of Existing Well from Surface Waters
16533 Cobb Road, Dinsmore, APN: 208-341-021, WCR2017-000770

To Whom It May Concern:

As requested, Lindberg Geologic Consulting has assessed an existing permitted well on the above-referenced parcel to estimate its potential for hydrologic connectivity with any adjacent wetlands, wells, and or surface waters, and if pumping this well could affect surface waters in nearby water courses. Tributaries in the vicinity of this well drain to the Van Duzen River (Figure 1). A California-Certified Engineering Geologist visited this site on August 23, 2022, to observe the subject well and local site conditions. Based on our research, observations, and our professional experience, it is our opinion the subject well has minimal likelihood of being hydrologically connected to nearby surface waters in any manner that could affect adjacent springs, wetlands and or surface waters in the vicinity. We understand that the applicant hopes to use water from this well to irrigate cannabis. No cultivation or irrigation was occurring at the time of our site visit, and we are not aware of the volume of water to be extracted or what the pumping schedule might be, but we expect that that information is provided elsewhere in the application.

Based on the Humboldt County WebGIS and the Assessor's Parcel Map (Figure 2), parcel 208-341-021 (Figure 2) encompasses approximately 8 acres. GPS located the subject well at latitude 40.48155° north, and longitude 123.57335 west (±29'). As reported by the driller, and as found by our office, this well is in Section 11, T1N, R5E, HB&M (Figure 1 and 2).

The Humboldt County WebGIS shows this well more than 1,550 feet northeast of the Van Duzen River (Figure 1). Based on interpolation from the USGS Dinsmore, Calif. (1977), topographic quadrangle map (Figure 1), and the Humboldt County WebGIS, the elevation of this well site is approximately 2,620 feet. At its nearest point, more than 1,550 feet southwest of this well, the elevation of the Van Duzen River is slightly more than 2,400 feet. The elevation of the bottom of the well is 2,270 feet, so the well bottom is approximately 130 feet lower than, and 1,550 feet north of the Van Duzen River.

The location of well 000770 is shown approximately on attached figures. The well was drilled by Watson Well Drilling, Inc. of Eureka, in February 2017, under Humboldt County well permit

#16/17-0457. Watson Well Drilling is a licensed well-drilling contractor (C-57 #1014048). They submitted their Well Completion Report (DWR 188) on March 14, 2017, and it is attached to this report. The driller estimated a yield of 12 gpm on February 23, 2017.

Total drilled depth of this well is 350 feet. The borehole diameter is 12-inches from the surface to 20-feet, and 7.875-inches from 20-feet to 350-feet. From grade to 20-feet, 8-inch stainless steel, blank casing pipe was installed. From grade to 170-feet blank PVC casing, 4.95-inches in diameter was installed. From 170-feet to 350-feet, in alternating 20-foot sections, 4.95-inch screened PVC casing (0.032-inch) milled slot size was installed alternating with blank PVC casing pipe. Per County requirements, a bentonite surface sanitary seal was installed from the surface to 20 feet, sealing the outer annulus around the 8-inch stainless steel surface casing pipe. The well is therefore cased and sealed through any potential shallow subsurface aquifers. From 20-feet to 350-feet the driller reports no annular fill. Depth to first water was reported as 75 feet below grade, and depth to static water in the completed and developed well was reported to be 63 feet bgs when the driller conducted the pump test on February 23, 2017.

No springs are mapped in Section 11 on the USGS Dinsmore, Calif., (1977) topographic quadrangle map (Figure 1). From the well, the nearest mapped spring is in Section 1, and was estimated to be more than 4,710 feet to the northeast, on the northeast facing side of Mad River Ridge. This nearest spring is within the Mad River drainage basin at an elevation of approximately 3,430 feet. The second nearest mapped spring is approximately 5,775 feet to the northwest at an elevation of approximately 3,125 feet in Section 2.

This parcel is located within California's Coast Range Geomorphic Province, in the Central Belt of the Franciscan Complex (McLaughlin et at., 2000), a seismically active region in which large earthquakes are expected to occur during the economic life span (70 years) of any developments on the subject property. Geologic mapping by McLaughlin, shows that the site is underlain by (yb?) "Metasandstone of the Yolla Bolly terrane (undivided)", a part of the Central Belt of the Franciscan Complex, as presented in Figure 4. The Metasandstone of Yolla Bolly terrane, undivided, was described as a "Lawsonitic metasandstone, commonly reconstituted to textural zone 2A (Jayko and others, 1989), locally interleaved with metachert and rarely with metavolcanic rocks, inferred to be derived from western side of Yolla Bolly terrane and translated northward with Central belt". The query in the yb? map symbol indicates the mapping geologist(s) had some degree of uncertainty in the identification of these materials.

The near-surface soils are thin and rocky and are composed predominantly of broken rock (gravel) with a silty fine sand matrix. The attached USDA-NRCS map unit description of the soils at this site describes the typical profile as consisting of gravelly loam from the surface to 13-inches, underlain by very gravelly clay loam to 60-inches, with weathered (metasandstone) bedrock below. The USDA-NRCS reports the water table lies at a depth of more than 80 inches. The near-surface soils onsite were observed to include a significant percentage of clay. Soils, based on our observations, are interpreted to be uniformly distributed across the subject parcel. In the areas we

explored, the soil profile appeared to consist of approximately 6-inches (maximum) of gravelly loam topsoil. Beneath the topsoil, we observed that the soils become more clayey and rockier.

Materials reported on the geologic log of the driller's well completion report (attached) include "Yellow Clay with gravel" in the upper 23-feet of the borehole. Beneath the yellow clay is 327 feet (23 to 350-feet) of "Blackish-Blue Sandstone" which was reported to be the water-bearing unit and is therefore presumably fractured.

We interpret the yellow clay with gravel section of this profile, from grade to 23 feet, to be an aquitard, a material of low permeability and transmissivity. Sandstone materials below 23 feet appear to be the water-bearing aquifer material tapped by this well. The water-bearing blackish-blue sandstone is highly likely to be extensively fractured, and thereby will have a higher transmissivity and permeability than would an unfractured sandstone. At the location of the subject well, the elevation of the water-bearing aquifer unit is thus between approximately 2,557 feet and 2,545 feet, based on the driller's report.

Below the surface soils, the earth materials encountered in the boring are Metasandstone of the Yolla Bolly terrane, a part of the Central Belt of the Franciscan Complex, (McLaughlin et al., 2000). As noted, fractured metasandstone rocks typically have high hydraulic conductivity and can constitute significant aquifers. We interpret the underlying sequence of materials described by the driller (gravelly clay and sandstone), as lithologies within the Central Belt of the Franciscan Complex. This sandstone apparently has a favorable hydraulic conductivity, making it, in our interpretation, the primary water bearing unit in this well.

A geologic cross section of the area after McLaughlin et al., (2000) shows the general structural and stratigraphic relationships between the regional geologic units (Figure 5). Central Belt rocks dip northeast and are bound by thrust fault plane contacts. On-site, no dip of the rock units could be observed because they are mantled with soil and hillslope colluvium and obscured by vegetation. We interpret the faults to be hydrologic boundaries of minimal permeability (due to grinding and shearing along the fault planes) which effectively separate units of the Franciscan Complex from each other, and limit groundwater flow between these fault-bound units.

Based on observations, review of pertinent and available information, and our experience, it is our professional opinion that this well has a low potential of having significant direct connection to proximal surface waters. First water was reportedly encountered at 75 feet, and then rose to a static level at 63 feet bgs. This well is sealed with bentonite hole plug (3/8") through the upper 20 feet; the bentonite seal isolates the deeper well bore from potential unconfined, near-surface aquifers with which it might communicate hydraulically. The bentonite-sealed surface casing seals the well from surface and shallow subsurface water infiltration into the deeper sandstone aquifer. When considered with the stratigraphy and easterly plunge of the geologic structure, plus the distances (horizontally and vertically) from the nearest surface waters, and the depth of the producing zone of this well (~63 to 350 feet), as well as its position relative to the watercourses and surface waters

in Section 11, we conclude that the depth of the surface seal, combined with the 23-feet of yellow clay with gravel, are sufficient to preclude the potential for hydraulic connectivity with surface waters, of which there are none closer than 1,550 feet in the Van Duzen River. Thus, the water source from which this well draws appears to be a confined subsurface aquifer not demonstrably connected to any surface waters or unconfined, near-surface aquifer(s). This well appears, in our professional opinion, likely to be hydraulically isolated from nearby wells, surface waters, springs or wetlands.

The driller estimated the yield of this well at 12 gallons per minute (gpm) on February 23, 2017. Drawdown and duration were not reported from the Watson Well Drilling pump test. At 12 gallons per minute, this well could potentially produce 17,280 gallons per day. As noted on the well completion report, this capacity may not be representative of this well's long-term yield. Additional testing would be necessary to estimate the sustainable long-term yield of the site well.

As noted, this subject well does not appear to be hydrologically connected to, or capable of influencing surface water flows in the Van Duzen River. Nor does this well appear to be hydrologically connected to any local springs or ephemeral wetlands. Given the horizontal distances involved, the elevation differences between the water-producing zone in the subject well, and the surface waters of the nearest watercourses, on-site the potential for significant hydrologic connectivity between surface waters and groundwater in the deeper bedrock aquifer appears low. Further, given the apparently limiting condition of 23 feet of low-transmissivity yellow clay with gravel above the water-bearing sandstone units, the aquifer seems isolated from, and without any significant geohydrologic connection to other aquifer(s).

As mentioned, on the Dinsmore USGS topographic quadrangle map, there are no springs mapped within 4,700 feet of this site well. There is a spring mapped in the southwest quarter of Section 1, more than 4,700 feet northeast of the subject well, and another spring in the northwest quarter of Section 2, more than 5,700 feet away from the subject well. The well in Section 1 is on the north facing flank of Mad River Ridge, within the drainage of the Mad River. There do not appear to be any other springs or wetlands mapped within a mile of this subject well.

We researched the California Department of Water Resources (DWR) database to determine if there were any other wells within 1,000 feet of the subject well. Based on the information available at the present time, there are multiple wells in Section 11, surrounding this parcel. The wells and their corresponding well completion reports are as follows:

- Well WCR1999-008348 (legacy #0705676) is a 98-foot deep domestic well on the subject parcel (208-341-021), that is not used for cannabis irrigation. Well WCR1999-008348 is screened in hard brown sandstone and sandy brown clay with hard brown boulders.
- Well WCR2016-001633 is more than 550 feet to the west southwest on parcel 208-071-032 (46070 Highway 36) in the alluvial valley bottom fill. Well WCR2016-001633 is 100 feet in depth and is screened from 40 to 90 feet in brown and blue river run (gravel).

- WCR2000-008693 (legacy #705692) is more than 900 feet to the north northwest on parcel 208-341-011. WCR2000-008693 is a domestic well that is 100 feet deep and is screened from 60 to 100 feet hard blue rock and soft blue gray shale.
- Well WCR2017-000830 is reportedly on parcel 208-341-015, but the coordinates in the drillers report placed it on parcel 210-092-003, so its location is somewhat uncertain. Well WCR2017-000830 is 120 feet deep and was completed in blue clay with black sandstone at 60 to 120 feet.
- Well WCRe0159744, on parcel 208-341-016 is 60 feet deep, and more than 900 feet to the northeast on parcel 208-341-016. Well WCRe0159744 is 60 feet deep with no screened interval specified; we speculate from the driller's report that the screened interval is from 20 to 60 feet.
- Well WCR2018-006592 is on parcel 208-341-020, more than 810 feet to the southeast. Well WCR2018-006592 is 200 feet deep and is screened in grayish blue shale with quartz from 80 to 200 feet.

In our professional opinion, it appears that the aquifer tapped by the subject well is recharged by water infiltrating through the soil from source areas both proximal and distal to the well site. The groundwater gradient in the shallow unconfined aquifer generally follows topography and flows toward the watercourses where it emerges as stream flow. When flowing, ephemeral streams in the vicinity also contribute to recharge as runoff infiltrates into these usually-dry stream beds.

The Natural Resources Conservation Service's (NRCS), online Web Soil Survey, shows the subject well within the Six Rivers National Forest Area, California, Hecker family on slopes of 35 to 70 percent, (#256, Figure 7), which is described as well-drained. The Web Soil Survey unit description is attached to this report. Mean annual precipitation in the area is listed by the NRCS as 50 to 70 inches per year. Capacity of the most limiting soil layer to transmit water (Ksat) is described as Very Low to moderately low (0.00 to 0.14 in/hr). Depth to the water table is reported to be at a depth of more than 80 inches. If, during the wet season, ten percent of the "low end" 50 inches of precipitation is absorbed by the soils and does not flow across the surface and into local watercourses, then approximately 3.33 acre-feet, or 1.08 million gallons of water per year, may be expected to recharge the local aquifer below this 8-acre subject property.

On March 28, 2022, Governor Newsome issued an executive order (N-7-22) relating to the ongoing drought in California. In his executive order, the governor outlined measures the state will undertake to avoid and ameliorate the negative impacts of the current drought. Among these measures, it was ordered that counties, cities, and other public agencies have been prohibited from approving permits for new groundwater wells (or alteration of existing wells) in basins "*subject to the Sustainable Groundwater Management Act and classified as medium- or high-priority without first obtaining written verification from a Groundwater Sustainability Agency managing the basin or area of the basin where the well is proposed*". The well at 16533 Cobb Road, Dinsmore, is not

within a basin subject to the Act, and there has been no Groundwater Sustainability Agency established with authority over the area where this county-permitted well is sited.

The Order states that counties, cities, and other public agencies are prohibited from issuing permits for new groundwater wells (or alteration of existing wells) "*without first determining that extraction of groundwater from the proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure*". Note that this Order, and that cited in the preceding paragraph, are not applicable to "*wells that provide less than two acre-feet per year* (650,000+ gallons) *of groundwater for individual domestic users, or that will exclusively provide groundwater to public water supply systems*."

Based on our observations, research, and professional experience, it is our professional opinion that the well on APN 208-341-021, at 16533 Cobb Road, Dinsmore, has a minimal likelihood of being hydrologically connected to nearby surface waters or wells in any manner that might significantly impact or affect adjacent wetlands, wells, and or surface waters in the vicinity.

Please contact us if you have questions or concerns regarding our findings and conclusions.

Sincerely,

David N. Lindberg, CEG 1895
Lindberg Geologic Consulting

DNL:sll

Attachments:

Figure 1: Topographic Well Location Map
Figure 2: Humboldt County Assessor's Parcel Map
Figure 3: Satellite Image of Well location
Figure 4: Geologic Map
Figure 4a: Geologic Map Explanation
Figure 5: Geologic Cross Section
Figure 6: Hydrogeologic Cross Section
Figure 7: USDA-NRCS Soil Map

Appended:

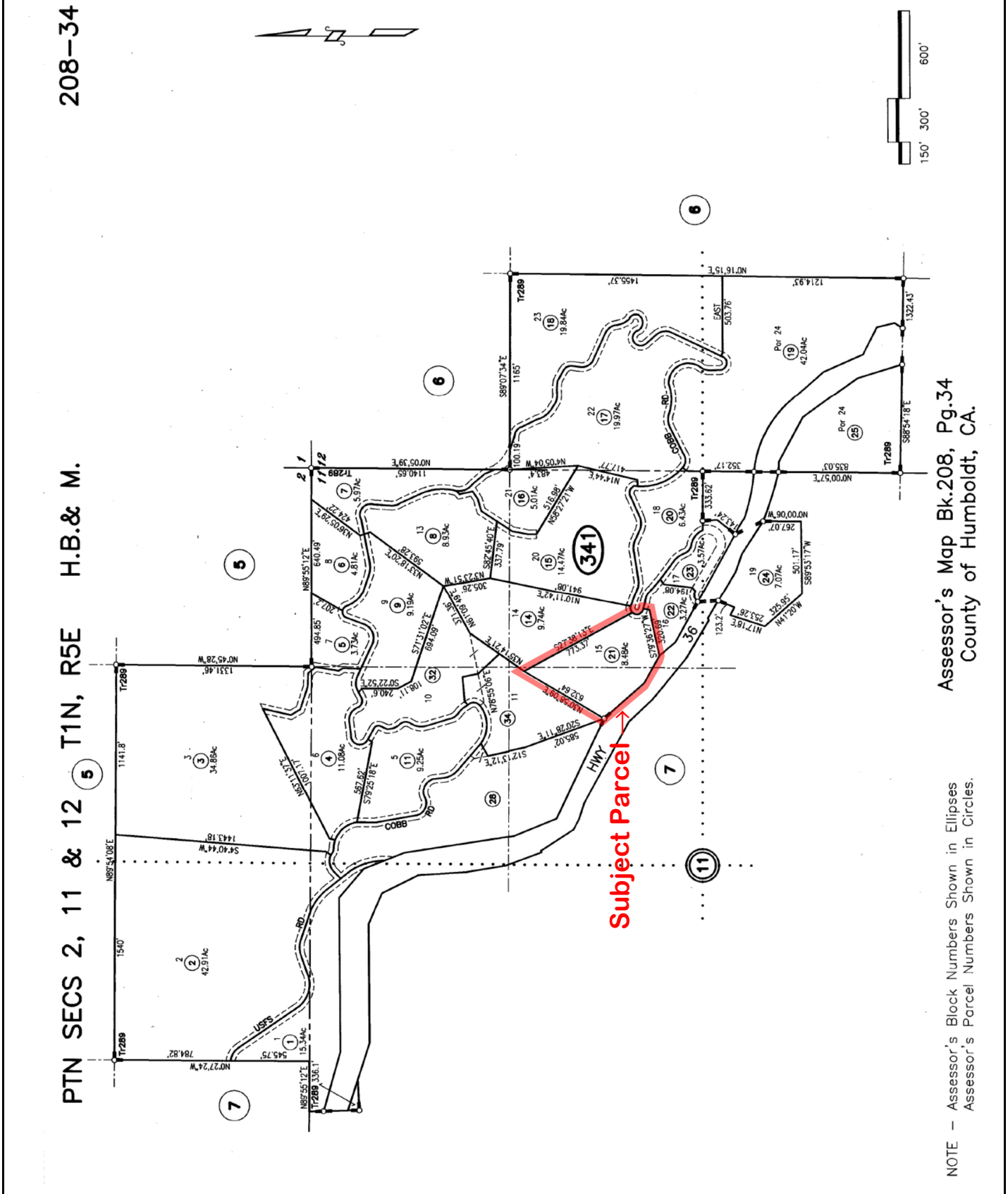
State of California Well Completion Report:
WCR2017-000770, APN: 208-341-021 (Subject Well)
WCR1999-008348 (legacy well #0705676), APN: 208-341-021 (Subject Parcel, drilled in 8/2000)
WCR2016-001633, APN: 208-071-032 (550 feet to south/southwest)
WCR200-008693 (legacy well #705692), APN, 208-341-011 (900 feet to the north)
WCR2017-000830, APN: 208-314-015 (not accurately located)
WCR-e0159744, APN: 208-341-016 (900 feet to the northeast)
WCR2018-006592, APN: 208-341-020 (> 810 feet to the southeast)

Web Soil Survey, NRCS Map Unit Description:
Hecker family, deep, 35 to 70 percent slopes (Soil Unit #256)

Lindberg Geologic Consulting	Engineering-Geologic Well Connectivity Assessment Report	Figure 1
Post Office Box 306	16533 Cobb Road, Dinsmore, California	August 29, 2022
Cutten, CA 95534	APN 208-341-021, High Grade 007 LLC, Mr. Neven Kalas, Client	Project 0474.00
(707) 442-6000	Assessor's Parcel Map (locations approximate)	1" ≈ 3,000'

Modified from: USGS "Dinsmore, Calif." 1977, 7.5' Quadrangle Map. N ≅

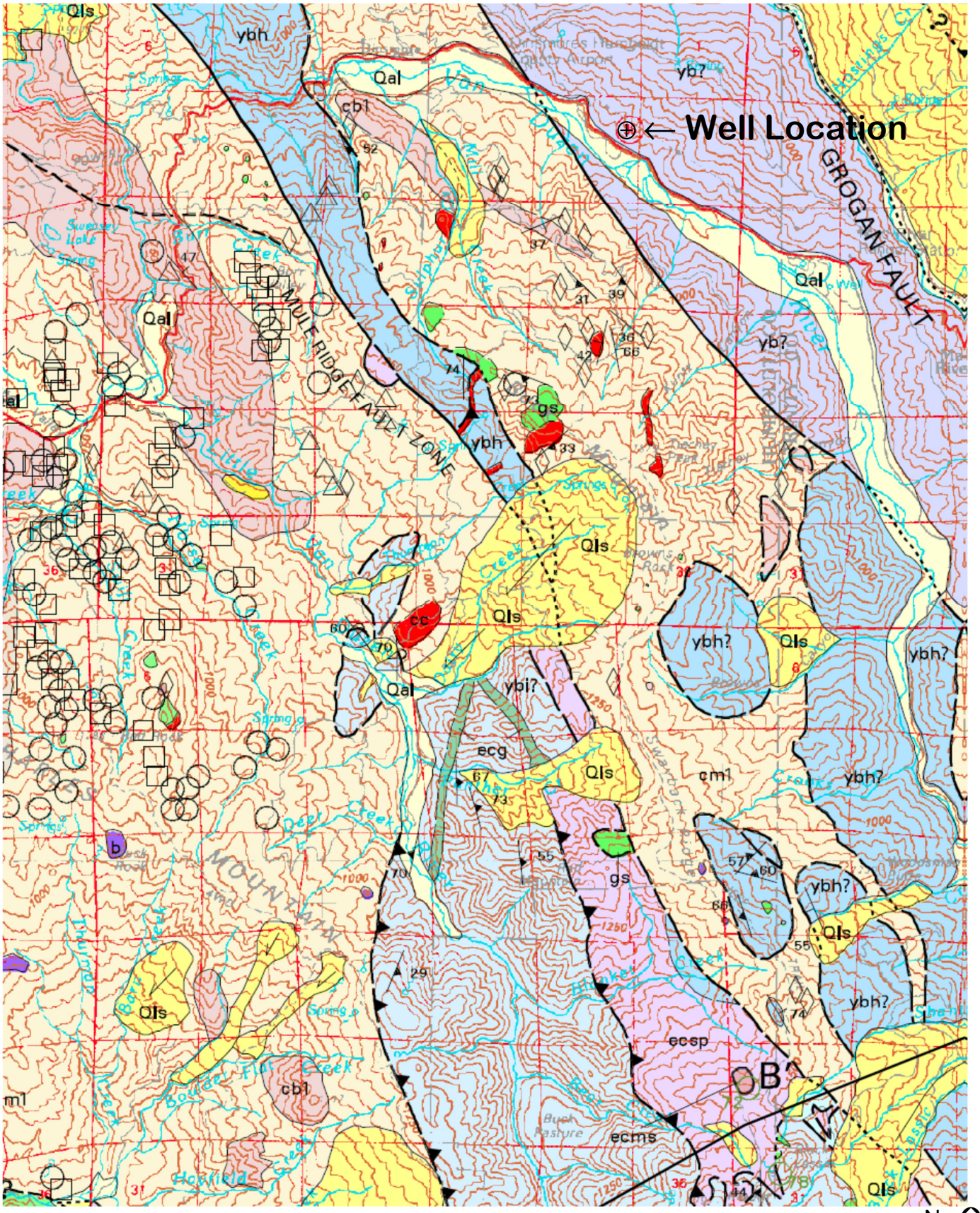
Lindberg Geologic Consulting	Engineering-Geologic Well Connectivity Assessment Report	Figure 2
Post Office Box 306	16533 Cobb Road, Dinsmore, California	August 29, 2022
Cutten, CA 95534	APN 208-341-021, High Grade 007 LLC, Mr. Neven Kalas, Client	Project 0474.00
(707) 442-6000	Assessor's Parcel Map (locations approximate)	Scale as Shown



Lindberg Geologic Consulting	Engineering-Geologic Well Connectivity Assessment Report	Figure 3
Post Office Box 306	16533 Cobb Road, Dinsmore, California	August 29, 2022
Cutten, CA 95534	APN 208-341-021, High Grade 007 LLC, Mr. Neven Kalas, Client	Project 0474.00
(707) 442-6000	Satellite View of Well Location (all locations approximate)	1" ≈ 250'

Modified from: Google Earth Imagery of April 30, 2019. N ≈

Lindberg Geologic Consulting	Engineering-Geologic Well Connectivity Assessment Report	Figure 4
Post Office Box 306	16533 Cobb Road, Dinsmore, California	August 29, 2022
Cutten, CA 95534	APN 208-341-021, High Grade 007 LLC, Mr. Neven Kalas, Client	Project 0474.00
(707) 442-6000	Geologic Map (locations approximate)	1" ≈ 3,400'



Lindberg Geologic Consulting	Engineering-Geologic Well Connectivity Assessment Report	Figure 4a
P. O. Box 306	16533 Cobb Road, Dinsmore, California	August 29, 2022
Cutten, CA 95534	APN 208-341-021, High Grade 007 LLC, Mr. Neven Kalas, Client	Project 0474.00
(707) 442-6000	Geologic Map Explanation	No Scale

DESCRIPTION OF MAP UNITS

QUATERNARY AND TERTIARY OVERLAP DEPOSITS

- Qal — Alluvial deposits (Holocene and late Pleistocene?)
- Qm — Undeformed marine shoreline and aolian deposits (Holocene and late Pleistocene)
- Qt — Undifferentiated nonmarine terrace deposits (Holocene and Pleistocene)
- Qls — Landslide deposits (Holocene and Pleistocene)
- QTog — Older alluvium (Pleistocene and [or] Pliocene)
- QTw — Marine and nonmarine overlap deposits (late Pleistocene to middle Miocene)
- Ti — Volcanic rocks of Fickle Hill (Oligocene)

COAST RANGES PROVINCE

FRANCISCAN COMPLEX

-- Coastal Belt --

Coastal terrane(Pliocene to Late Cretaceous)

Sedimentary, igneous, and metamorphic rocks of the Coastal terrane (Pliocene to Late Cretaceous):

- co1 — Melange
- co2 — Melange
- co3 — Broken sandstone and argillite
- co4 — Intact sandstone and argillite
- cob — Basaltic Rocks (Late Cretaceous)
- cols — Limestone (Late Cretaceous)
- m — Undivided blueschist (Jurassic?)

King Range terrane (Miocene to Late Cretaceous)

- Krp — Igneous and sedimentary rocks of Point Delgada (Late Cretaceous)
- m — Undivided blueschist blocks (Jurassic?)

Sandstone and argillite of King Peak (middle Miocene to Paleocene[?]):

- krk1 — Melange and (or) folded argillite
- krk2 — Highly folded broken formation
- krk3 — Highly folded, largely unbroken rocks
- krl — Limestone
- krc — Chert
- krb — Basalt

False Cape terrane (Miocene? to Oligocene?)

- fc — Sedimentary rocks of the False Cape terrane (Miocene? to Oligocene?)

Yager terrane (Eocene to Paleocene?)

Sedimentary rocks of the Yager terrane (Eocene to Paleocene?):

- y1 — Sheared and highly folded mudstone
- y2 — Highly folded broken mudstone, sandstone, and conglomeratic sandstone
- y3 — Highly folded, little-broken sandstone, conglomerate, and mudstone
- Ycgl — Conglomerate

-- Central belt --

Melange of the Central belt (early Tertiary to Late Cretaceous):

Unnamed Metasandstone and meta-argillite (Late Cretaceous to Late Jurassic):

- cm1 — Melange
- cm2 — Melange
- cb1 — Broken formation
- cb2 — Broken formation
- cwr — White Rock metasandstone of Jayko and others (1989) (Paleogene and [or] Late Cretaceous)
- chr — Haman Ridge graywacke of Jayko and others (1989) (Cretaceous?)
- cfs — Fort Seward metasandstone (age unknown)
- cls — Limestone (Late to Early Cretaceous)
- cc — Chert (Late Cretaceous to Early Jurassic)
- bs — Basaltic rocks (Cretaceous and Jurassic)
- m — Undivided blueschist blocks (Jurassic?)
- gs — Greenstone
- c — Metachert
- yb — Metasandstone of Yolla Bolly terrane, undivided
- b — Melange block, lithology unknown

-- Eastern Belt --

Pickett Peak terrane (Early Cretaceous or older)

Metasedimentary and metavolcanic rocks of the Pickett Peak terrane (Early Cretaceous or older):

- ppsm — South Fork Mountain Schist
- mb — Chinquapin Metabasalt Member (Irwin and others, 1974)
- ppv — Valentine Springs Formation
- mv — Metabasalt and minor metachert

Yolla Bolly terrane (Early Cretaceous to Middle Jurassic?)

Metasedimentary and metaigneous rocks of the Yolla Bolly terrane (Early Cretaceous to Middle Jurassic?):

- ybt — Taliaferro Metamorphic Complex of Suppe and Armstrong (1972) (Early Cretaceous to Middle Jurassic?)
- ybc — Chicago Rock melange of Blake and Jayko (1983) (Early Cretaceous to Middle Jurassic)
- gs — Greenstone
- c — Metachert
- ybh — Metagraywacke of Hammerhorn Ridge (Late Jurassic to Middle Jurassic)
- c — Metachert
- gs — Greenstone
- sp — Serpentinite
- ybd — Devils Hole Ridge broken formation of Blake and Jayko (1983) (Early Cretaceous to Middle Jurassic)
- c — Radiolarian chert
- ybi — Little Indian Valley argillite of McLaughlin and Ohlin (1984) (Early Cretaceous to Late Jurassic)

Yolla Bolly terrane

- yb — Rocks of the Yolla Bolly terrane, undivided

GREAT VALLEY SEQUENCE AND COAST RANGE OPHIOLITE

Elder Creek(?) terrane

- ecms — Mudstone (Early Cretaceous)

Coast Range ophiolite (Middle and Late Jurassic):

- ecg — Layered gabbro
- ecsp — Serpentinite melange

Del Puerto(?) terrane

Rocks of the Del Puerto(?) terrane:

- dpms — Mudstone (Late Jurassic)

Coast Range ophiolite (Middle and Late Jurassic):

- dpt — Tuffaceous chert (Late Jurassic)
- dpb — Basaltic flows and keratophyric tuff (Jurassic?)
- dpd — Diabase (Jurassic?)
- dpsp — Serpentinite melange (Jurassic?)
- sp — Undivided Serpentinized peridotite (Jurassic?)

KLAMATH MOUNTAINS PROVINCE

Undivided Great Valley Sequence:

- Ks — Sedimentary rocks (Lower Cretaceous)

GREAT VALLEY SEQUENCE OVERLAP ASSEMBLAGE

Hayfork terrane

Eastern Hayfork subterrane:

- eh — Melange and broken formation (early? Middle Jurassic)
- ehls — Limestone
- ehsp — Serpentinite

Western Hayfork subterrane:

- whu — Hayfork Bally Meta-andesite of Irwin (1985), undivided (Middle Jurassic)
- whwg — Wildwood (Chanchelulla Peak of Wright and Fahan, 1988) pluton (Middle Jurassic)
- whwp — Clinopyroxenite
- whji — Diorite and gabbro plutons (Middle? Jurassic)

Rattlesnake Creek terrane

- rcm — Melange (Jurassic and older)
- rcls — Limestone
- rcc — Radiolarian chert
- rcis — Volcanic Rocks (Jurassic or Triassic)
- rcic — Intrusive complex (Early Jurassic or Late Triassic)
- rcp — Plutonic rocks (Early Jurassic or Late Triassic)
- rcum — Ultramafic rocks (age uncertain)
- rcpd — Blocky peridotite

Western Klamath terrane

Smith River subterrane:

- srs — Galice? formation (Late Jurassic)
- srv — Pyroclastic andesite
- srgb — Glen Creek gabbro-ultramafic complex of Irwin and others (1974)
- srpd — Serpentinized peridotite

MAP SYMBOLS

- Contact
- Fault
- Thrust fault
- Trace of the San Andreas fault associated with 1906 earthquake rupture

Strike and dip of bedding:

- Inclined (10/20)
- Vertical
- Horizontal
- Overturned (10/20)
- Approximate (20)
- Joint (10)
- Strike and dip of cleavage (10)

Shear foliation:

- Inclined (10)
- Vertical

Folds:

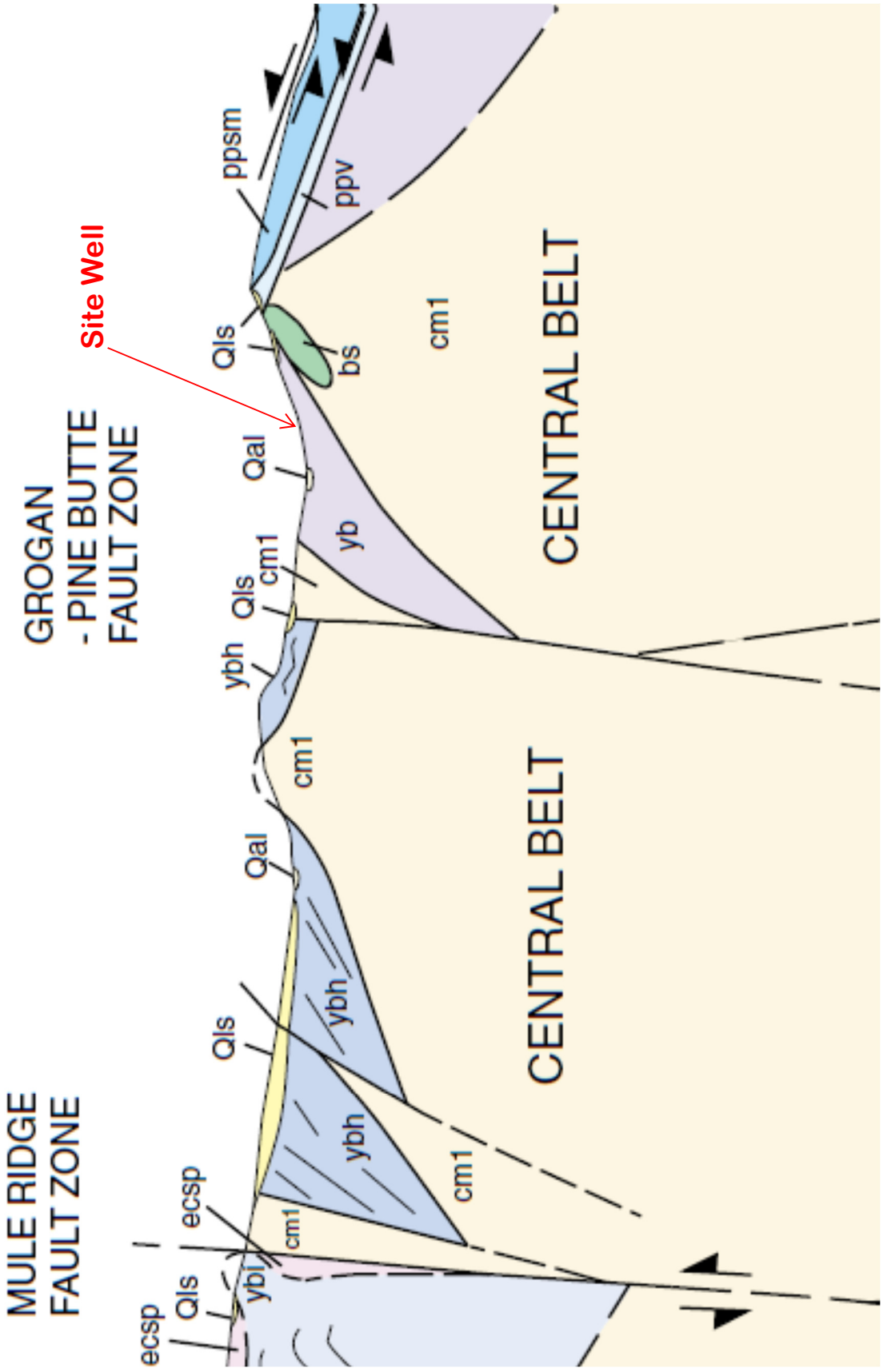
- Synclinal or synformal axis
- Anticlinal or antiformal axis
- Overturned syncline
- Landslide (Qls)

Melange Blocks:

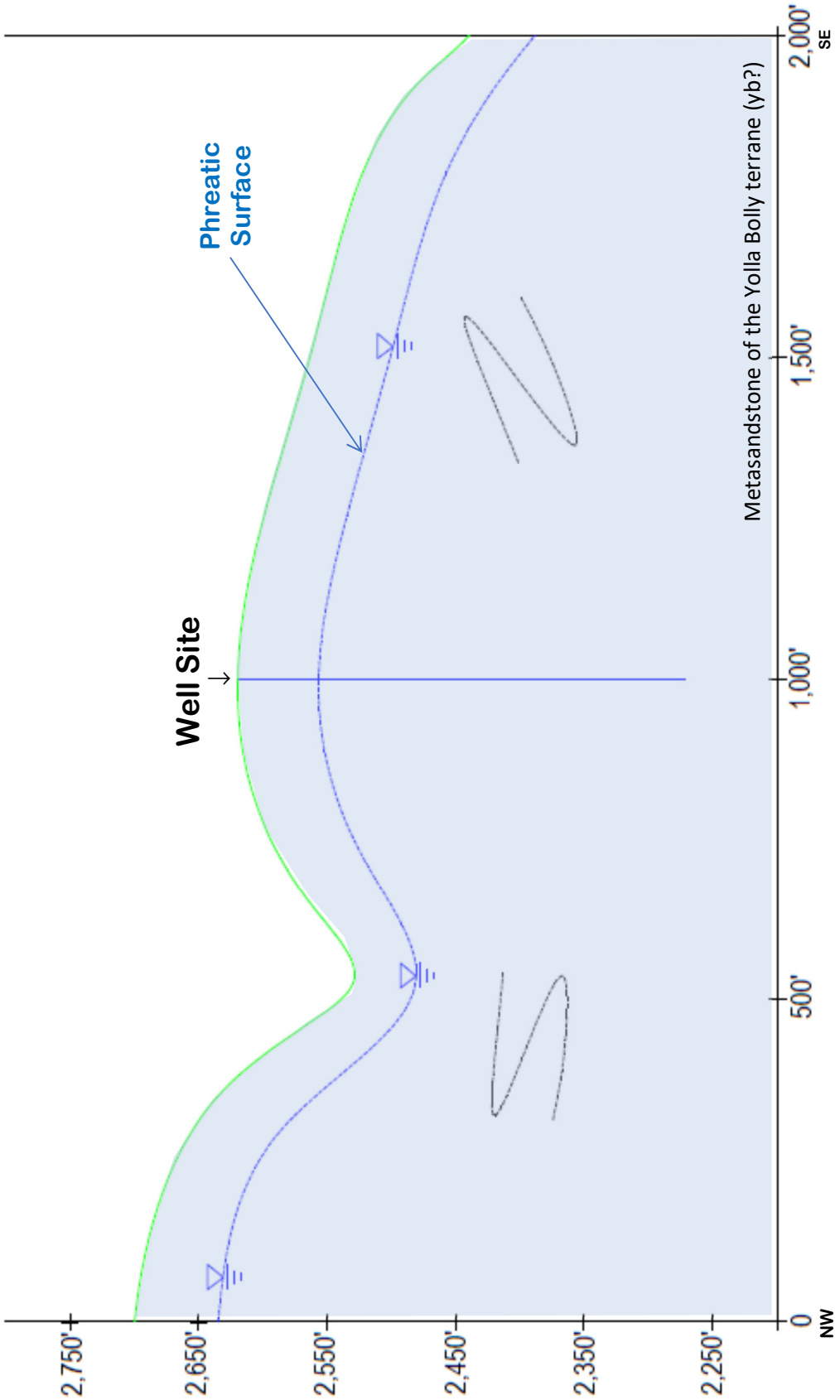
- Serpentinite
- Chert
- Blueschist
- Greenstone
- Fossil locality and number (10)

GEOLOGY OF THE CAPE MENDOCINO, EUREKA, GARBERVILLE, AND SOUTHWESTERN PART OF THE HAYFORK 30 X 60 MINUTE QUADRANGLES AND ADJACENT OFFSHORE AREA, NORTHERN CALIFORNIA (McLaughlin et al., 2000)

Lindberg Geologic Consulting	Engineering-Geologic Well Connectivity Assessment Report	Figure 5
Post Office Box 306	16533 Cobb Road, Dinsmore, California	August 29, 2022
Cutten, CA 95534	APN 208-341-021, High Grade 007 LLC, Mr. Neven Kalas, Client	Project 0474.00
(707) 442-6000	General Geologic Cross Section (locations approximate)	Not to Scale



Lindberg Geologic Consulting	Engineering-Geologic Well Connectivity Assessment Report	Figure 6
Post Office Box 306	16533 Cobb Road, Dinsmore, California	August 29, 2022
Cutten, CA 95534	APN 208-341-021, High Grade 007 LLC, Mr. Neven Kalas, Client	Project 0474.00
(707) 442-6000	Hydrogeologic Cross Section (locations approximate)	V.E. ≈ 2x



In this vertically exaggerated (~2x) cross section, the view is looking up slope toward the northeast. Groundwater flow in the cross section is toward the viewer, or out of the page. Groundwater is presumed to flow from recharge areas in the high ground to the east and northeast, to the southwest toward Dinsmore Valley and the Van Duzen River. Bedrock subgrade is presumed to be composed of abundantly fractured metasandstone of the Yolla Bolly terrane of the Central Belt of the Franciscan Complex (yb?). These deposits are one of several components of the Central Belt Franciscan Complex. Groundwater is envisioned as flowing through fractured zones in the metasandstone. Fractures are interpreted to be the primary preferential flow paths for groundwater in this area.

Lindberg Geologic Consulting	Engineering-Geologic Well Connectivity Assessment Report	Figure 7
Post Office Box 306	16533 Cobb Road, Dinsmore, California	August 29, 2022
Cutten, CA 95534	APN 208-341-021, High Grade 007 LLC, Mr. Neven Kalas, Client	Project 0474.00
(707) 442-6000	USDA-NRCS Soil Map (locations approximate)	No Scale

Modified from: USG-NRCS Web Soil Survey, August 26, 2022 N ≈

State of California

Well Completion Report

Form DWR 188 Complete 4/12/2017

WCR2017-000770

Owner's Well Number | Date Work Began 02/22/2017 | Date Work Ended 02/23/2017

Local Permit Agency Humboldt County Department of Health & Human Services - Land Use Program

Secondary Permit Agency | Permit Number 16/17-0457 | Permit Date 11/08/2016

Well Owner (must remain confidential pursuant to Water Code 13752)

Name XXXXXXXXXXXXXXXXXXX

Mailing Address XXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXXXXX

City XXXXXXXXXXXXXXXXXXX State XX Zip XXXXX

Planned Use and Activity

Activity New Well

Planned Use Water Supply Domestic

Well Location

Address 16533 Cobb RD

City Dinsmore Zip 95526 County Humboldt

Latitude Deg. Min. Sec. N Longitude Deg. Min. Sec. W

Dec. Lat. 40.47952 Dec. Long. -123.57926

Vertical Datum Horizontal Datum WGS84

Location Accuracy Centroid of Location Determination Method Derived from TRS

APN 208-341-021

Township 01 N

Range 05 E

Section 11

Baseline Meridian Humboldt

Ground Surface Elevation

Elevation Accuracy

Elevation Determination Method

Borehole Information

Orientation Vertical Specify

Drilling Method Direct Rotary Drilling Fluid Air

Total Depth of Boring 350 Feet

Total Depth of Completed Well 350 Feet

Water Level and Yield of Completed Well

Depth to first water 75 (Feet below surface)

Depth to Static Water Level 63 (Feet) Date Measured 02/23/2017

Estimated Yield* 12 (GPM) Test Type

Test Length (Hours) Total Drawdown (feet)

*May not be representative of a well's long term yield.

Geologic Log - Free Form

Depth from Surface Feet to Feet		Description
0	23	Yellow Clay with Gravel
23	350	Blackish-Blue Sandstone

Casings

Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specificatons	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	20	Blank	Stainless Steel	N/A	0.188	8			
2	0	170	Blank	PVC	N/A	0.291	4.95			
2	170	190	Screen	PVC	N/A	0.291	4.95	Milled Slots	0.032	
2	190	210	Blank	PVC	N/A	0.291	4.95			
2	210	230	Screen	PVC	N/A	0.291	4.95	Milled Slots	0.032	
2	230	250	Blank	PVC	N/A	0.291	4.95			
2	250	270	Screen	PVC	N/A	0.291	4.95	Milled Slots	0.032	
2	270	290	Blank	PVC	N/A	0.291	4.95			
2	290	310	Screen	PVC	N/A	0.291	4.95	Milled Slots	0.032	
2	310	330	Blank	PVC	N/A	0.291	4.95			
2	330	350	Screen	PVC	N/A	0.291	4.95	Milled Slots	0.032	

Annular Material

Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	20	Bentonite	Non Hydrated Bentonite		3/8 Hole Plug
20	350	Other Fill	See description.		non annular fill

Other Observations:

Borehole Specifications

Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	20	12
20	350	7.875

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name: WATSON WELL DRILLING (Person, Firm or Corporation)

500 Summer Street (Address) | Eureka (City) | CA (State) | 95501 (Zip)

Signed: *electronic signature received* (C-57 Licensed Water Well Contractor) | 03/14/2017 (Date Signed) | 1014048 (C-57 License Number)

DWR Use Only

CSG #	State Well Number	Site Code	Local Well Number

N — Latitude Deg/Min/Sec

W — Longitude Deg/Min/Sec

TRS:

APN:

ORIGINAL
File with DWR

RECEIVED
JUN 27 2000

Page ___ of ___
Owner's Well No. _____
Date Work Began 9-16-99, Ended 9-17-99
Local Permit Agency HUMBOLT COUNTY
Permit No. _____ Permit Date 9-9-99

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 705676

DWR USE ONLY — DO NOT FILL IN
01N/05E-11H
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD _____ FLUID _____

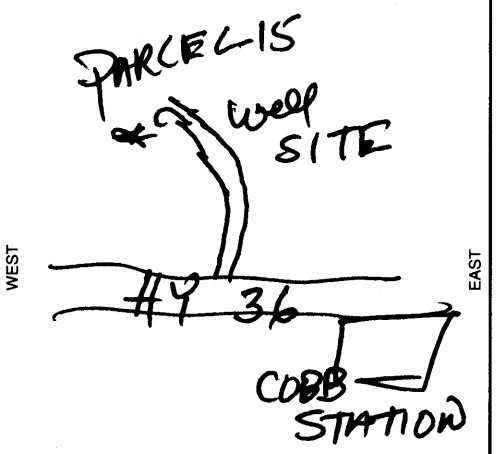
DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	2	TOP SOIL
2	60	HARD BROWN SANDSTONE
60	98	SANDY BROWN CLAY AND HARD BROWN BOULDERS

TOTAL DEPTH OF BORING 98 (Feet)
TOTAL DEPTH OF COMPLETED WELL 98 (Feet)

WELL LOCATION

Address COBB STATION SUBDIVISION
City DINSMORE-PARCEL #15
County HUMBOLT
APN Book 208 Page 341 Parcel 21
Township 01N Range 05E Section 11
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH
Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. ***PLEASE BE ACCURATE & COMPLETE.***

ACTIVITY (✓)
✓ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)
WATER SUPPLY
✓ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 65 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 60 (Ft.) & DATE MEASURED _____
ESTIMATED YIELD * 5 (GPM) & TEST TYPE PUMP
TEST LENGTH 3½ (Hrs.) TOTAL DRAWDOWN 30 (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	20	10	✓				F480	5	200 PSI	
20	40	8	✓				F480	5	200 PSI	
40	98	8		✓			F480	5	200 PSI	.040

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	20	✓			
20	98			✓	3/8 PEA GRAVEL

ATTACHMENTS (✓)
___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other _____
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME CAMPBELL DRILLING (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED) JUL 10 2000
ADDRESS P.O. BOX 1529 CITY UKIAH STATE CA ZIP 95482
Signed Mike Campbell WELL DRILLER/AUTHORIZED REPRESENTATIVE
DATE SIGNED 9-22-99
C-57 LICENSE NUMBER 535763

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

State of California

Well Completion Report

Form DWR 188 Complete 3/1/2016

WCR2016-001633

Owner's Well Number: 1 | Date Work Began: 02/26/2016 | Date Work Ended: 02/29/2016

Local Permit Agency: Humboldt County Department of Health & Human Services - Land Use Program

Secondary Permit Agency: | Permit Number: 15/16-0392 | Permit Date: 02/22/2016

Well Owner (must remain confidential pursuant to Water Code 13752)

Name: XXXXXXXXXXXXXXXXXXX

Mailing Address: XXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXXXXX

City: XXXXXXXXXXXXXXXXXXX | State: XX | Zip: XXXXX

Planned Use and Activity

Activity: New Well

Planned Use: Water Supply Domestic

Well Location

Address: 46070 HWY 36

City: Dinsmore | Zip: 95526 | County: Humboldt

Latitude: Deg. Min. Sec. N | Longitude: Deg. Min. Sec. W

Dec. Lat.: 40.4800672 | Dec. Long.: -123.5737151

Vertical Datum: | Horizontal Datum: WGS84

Location Accuracy: | Location Determination Method:

APN: 208-071-32

Township: 01 N

Range: 05 E

Section: 11

Baseline Meridian: Humboldt

Ground Surface Elevation:

Elevation Accuracy:

Elevation Determination Method:

Borehole Information

Orientation: Vertical | Specify:

Drilling Method: Other - Under-Ream Down-Hole Hammer | Drilling Fluid: Air

Total Depth of Boring: 100 Feet

Total Depth of Completed Well: 100 Feet

Water Level and Yield of Completed Well

Depth to first water: 22 (Feet below surface)

Depth to Static Water Level: 16 (Feet) | Date Measured: 02/29/2016

Estimated Yield*: 200 (GPM) | Test Type: Air Lift

Test Length: 4.0 (Hours) | Total Drawdown: 84 (feet)

*May not be representative of a well's long term yield.

Geologic Log - Free Form

Depth from Surface Feet to Feet		Description
0	2	Top Soil
2	47	Brown River Run
47	100	Blue River Run

Casings

Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specificatons	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	40	Blank	Low Carbon Steel	Grade: ASTM A53	0.188	8.625			
1	40	90	Screen	Low Carbon Steel	Grade: ASTM A53	0.188	8.625	Milled Slots	0.05	
1	90	100	Blank	Low Carbon Steel	Grade: ASTM A53	0.188	8.625			

Annular Material

Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	20	Bentonite	Other Bentonite		Sanitary Seal
20	100	Filter Pack	Other Gravel Pack	3/8 in.	Pea Gravel

Other Observations:

Borehole Specifications

Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	100	12

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name: FISCH DRILLING (Person, Firm or Corporation)

3150 JOHNSON ROAD (Address) | HYDESVILLE (City) | CA (State) | 95547 (Zip)

Signed: *electronic signature received* (C-57 Licensed Water Well Contractor) | 02/29/2016 (Date Signed) | 683865 (C-57 License Number)

Attachments

BowenSiteMap.pdf - Location Map

DWR Use Only

CSG #	State Well Number	Site Code	Local Well Number

N — Latitude Deg/Min/Sec

W — Longitude Deg/Min/Sec

TRS:

APN:

ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 705692

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO. 01N/05E-11 H
LATITUDE / LONGITUDE
APN/TRS/OTHER

Page ___ of ___
Owner's Well No. ___
Date Work Began 7-17-00 Ended 7-21-00
Local Permit Agency HUMBOLT COUNTY
Permit No. ___ Permit Date 5-31-00

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD AIR ROTARY FLUID ___

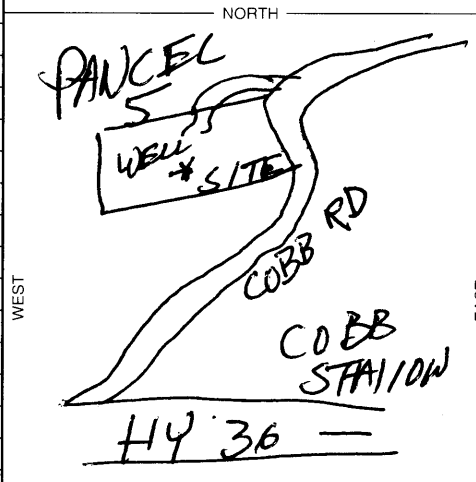
DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0 2	TOP SOIL
3 38	SANDY BROWN CLAY
38 52	BLUE SHALE QUARTZ LINED
52 81	HARD BLUE ROCK
81 100	SOFT BLUE GRAY SHALE

TOTAL DEPTH OF BORING 100 (Feet)
TOTAL DEPTH OF COMPLETED WELL 97 (Feet)

WELL LOCATION

Address PARCEL #5 COBB STATION
City DINSMORE CA
County HUMBOLT
APN Book 208 Page 341 Parcel 11 01N/05E-11 H
Township ___ Range ___ Section ___
Latitude ___ DEG. MIN. SEC. NORTH Longitude ___ DEG. MIN. SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. ***PLEASE BE ACCURATE & COMPLETE.***

ACTIVITY (✓)

✓ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
✓ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 60 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 57 (Ft.) & DATE MEASURED 7-21-00
ESTIMATED YIELD * 3 (GPM) & TEST TYPE PUMP
TEST LENGTH 3 (Hrs.) TOTAL DRAWDOWN 30 (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BOREHOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
1 20	10"		✓			F480	5"	200 BSI	
20 60	8		✓			F480	5"	200 BSI	
60 100	8		✓			F480	5"	200 BSI	.4 x 4

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
1 20	✓			
20 100			✓	3/8 PEA GRAVEL

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME CAMPBELL DRILLING (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS P.O. BOX 1529 CITY UKIAH STATE CA ZIP 95482
Signed Mike Campbell WELL DRILLER/AUTHORIZED REPRESENTATIVE
DATE SIGNED 9-26-00
C-57 LICENSE NUMBER 525763

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

State of California

Well Completion Report

Form DWR 188 Complete 4/12/2017

WCR2017-000830

Owner's Well Number: Well #1 | Date Work Began: 02/23/2017 | Date Work Ended: 02/24/2017

Local Permit Agency: Humboldt County Department of Health & Human Services - Land Use Program

Secondary Permit Agency: | Permit Number: 16/17-0542 | Permit Date: 12/23/2016

Well Owner (must remain confidential pursuant to Water Code 13752)

Name: XXXXXXXXXXXXXXXXXXX

Mailing Address: XXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXXXXX

City: XXXXXXXXXXXXXXXXXXX | State: XX | Zip: XXXXX

Planned Use and Activity

Activity: New Well

Planned Use: Water Supply Domestic

Well Location

Address: 14051 Cobb RD

City: Dinsmore | Zip: 96025 | County: Humboldt

Latitude: Deg. Min. Sec. N | Longitude: Deg. Min. Sec. W

Dec. Lat.: 40.47952 | Dec. Long.: -123.57926

Vertical Datum: | Horizontal Datum: WGS84

Location Accuracy: Centroid of | Location Determination Method: Derived from TRS

APN: 208-341-015

Township: 01 N

Range: 05 E

Section: 11

Baseline Meridian: Humboldt

Ground Surface Elevation:

Elevation Accuracy:

Elevation Determination Method:

Borehole Information

Orientation: Vertical | Specify:

Drilling Method: Direct Rotary | Drilling Fluid: Air

Total Depth of Boring: 120 Feet

Total Depth of Completed Well: 120 Feet

Water Level and Yield of Completed Well

Depth to first water: 70 (Feet below surface)

Depth to Static Water Level: 68 (Feet) | Date Measured:

Estimated Yield*: 15 (GPM) | Test Type:

Test Length: (Hours) | Total Drawdown: (feet)

*May not be representative of a well's long term yield.

Geologic Log - Free Form

Depth from Surface Feet to Feet		Description
0	8	Brown Clay
8	18	Yellow Clay
18	65	Brown Clay with Gravel
65	120	Blue Clay with Black Sandstone

Casings

Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specificatons	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	20	Blank	Stainless Steel	N/A	0.188	8			
2	0	60	Blank	PVC	N/A	0.291	4.95			
2	60	80	Screen	PVC	N/A	0.291	4.95	Milled Slots	0.032	
2	80	100	Blank	PVC	N/A	0.291	4.95			
2	100	120	Screen	PVC	N/A	0.291	4.95	Milled Slots	0.032	

Annular Material

Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	20	Bentonite	Non Hydrated Bentonite		3/8 Hole Plug
20	120	Other Fill	See description.		No Annular Fill

Other Observations:

Borehole Specifications

Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	20	12
20	120	7.875

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name: WATSON WELL DRILLING
Person, Firm or Corporation

500 Summer Street (Address) | Eureka (City) | CA (State) | 95501 (Zip)

Signed: *electronic signature received* (C-57 Licensed Water Well Contractor) | 03/20/2017 (Date Signed) | 1014048 (C-57 License Number)

DWR Use Only

CSG #	State Well Number	Site Code	Local Well Number

N

Latitude Deg/Min/Sec

W

Longitude Deg/Min/Sec

TRS:

APN:

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR OCT 22 2012

Page 1 of 2

Owner's Well Number 1

Date Work Began 08/28/2012 Date Work Ended 8/30/2012

Local Permit Agency HUMBOLDT COUNTY E.H.D.

Permit Number 11/12-0642 Permit Date 8/10/12

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0159744

DWR Use Only – Do Not Fill In

State Well Number/Site Number: 01N/05E-11

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary Drilling Fluid Air

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	60	FRACTURED SANDSTONE GREY

Total Depth of Boring 60 Feet

Total Depth of Completed Well 60 Feet

Well Location

Address 1000 COBB RD.

City DINSMORE County Humboldt

Latitude ___ Deg. ___ Min. ___ Sec. N Longitude ___ Deg. ___ Min. ___ Sec. W

Datum ___ Decimal Lat. ___ Decimal Long. ___

APN Book 208 Page 341 Parcel 016

Township 01N Range 05E Section 11

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North / West / East / South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☑ Domestic ☐ Public
☐ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water 20 (Feet below surface)

Depth to Static Water Level 20 (Feet) Date Measured 08/30/2012

Estimated Yield * 50 (GPM) Test Type Air Lift

Test Length 4.0 (Hours) Total Drawdown 55 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	60	10	Blank	Low Carbon Steel	.188	8		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	20	Bentonite	SANITARY SEAL
20	60	Filter Pack	PEA GRAVEL

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☑ Other LOCATION MAP

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name FISCH DRILLING
Person, Firm or Corporation

3150 JOHNSON ROAD Address HYDESVILLE City CA State 95547 Zip

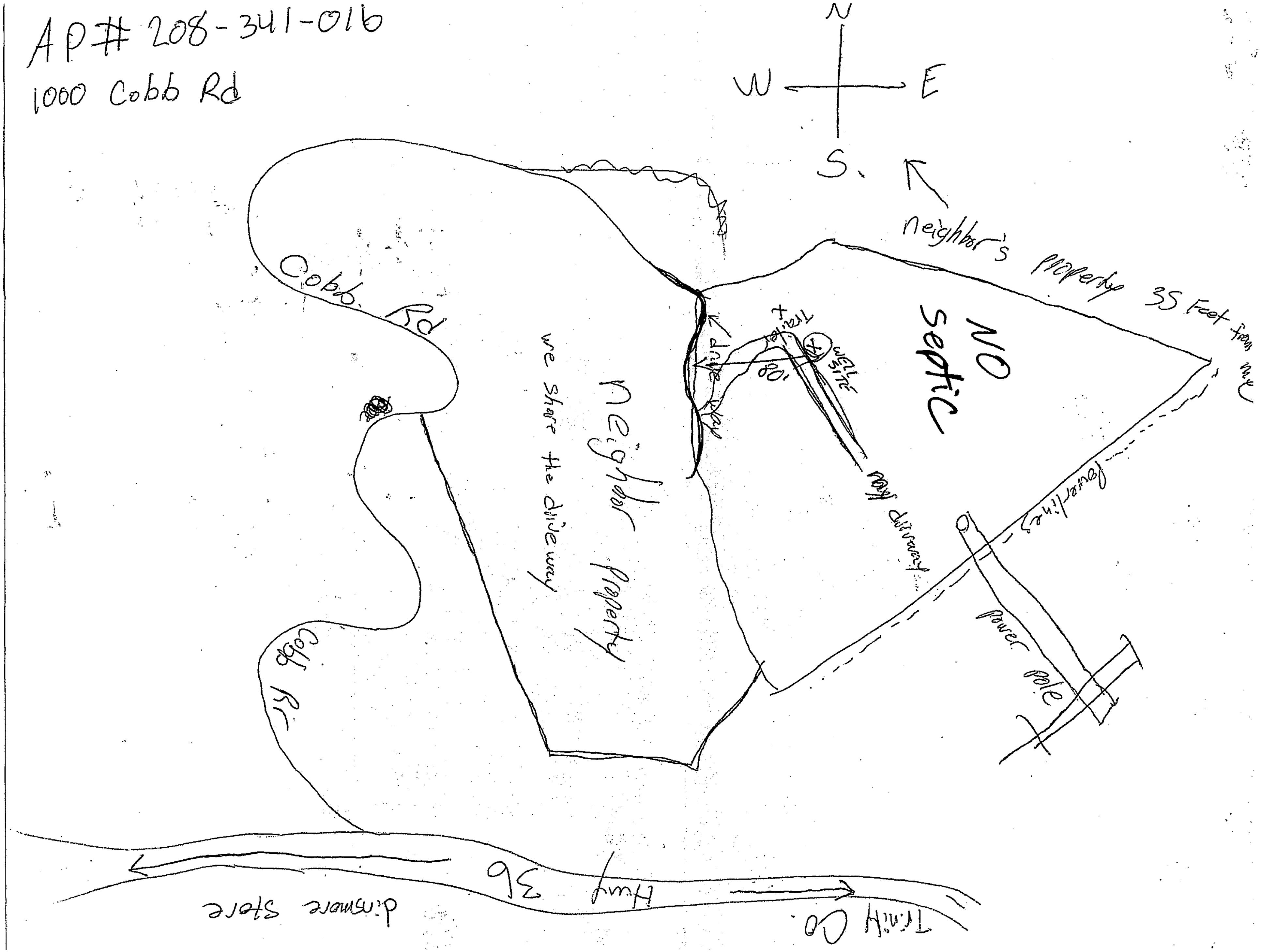
Signed [signature] C-57 Licensed Water Well Contractor

09/05/2012 Date Signed 683865 C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

AP# 208-341-016
1000 Cobb Rd



State of California

Well Completion Report

Form DWR 188 Complete 9/13/2018

WCR2018-006592

Owner's Well Number: WELL #2 | Date Work Began: 07/30/2018 | Date Work Ended: 08/01/2018

Local Permit Agency: Humboldt County Department of Health & Human Services - Land Use Program

Secondary Permit Agency: | Permit Number: 17/18-1292 | Permit Date: 02/15/2018

Well Owner (must remain confidential pursuant to Water Code 13752)

Name: XXXXXXXXXXXXXXXXXXX

Mailing Address: XXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXXXXX

City: XXXXXXXXXXXXXXXXXXX | State: XX | Zip: XXXXX

Planned Use and Activity

Activity: New Well

Planned Use: Water Supply Domestic

Well Location

Address: 46255 STATE HWY 36

City: BRIDGEVILLE | Zip: 95526 | County: Humboldt

Latitude: 40 Deg. 28 Min. 48.8427 Sec. N | Longitude: -123 Deg. 34 Min. 15.5053 Sec. W

Dec. Lat.: 40.4802341 | Dec. Long.: -123.5709737

Vertical Datum: | Horizontal Datum: WGS84

Location Accuracy: | Location Determination Method:

APN: 208-341-020

Township: 01 N

Range: 05 E

Section: 11

Baseline Meridian: Humboldt

Ground Surface Elevation:

Elevation Accuracy:

Elevation Determination Method:

Borehole Information

Orientation: Vertical | Specify:

Drilling Method: Other - CASING ADVANCE | Drilling Fluid: Air

Total Depth of Boring: 200 Feet

Total Depth of Completed Well: 200 Feet

Water Level and Yield of Completed Well

Depth to first water: 100 (Feet below surface)

Depth to Static Water Level: 77 (Feet) | Date Measured: 08/01/2018

Estimated Yield*: 70 (GPM) | Test Type: Air Lift

Test Length: 4 (Hours) | Total Drawdown: (feet)

*May not be representative of a well's long term yield.

Geologic Log - Free Form

Depth from Surface Feet to Feet		Description
0	25	BROWN SHALE WITH CLAY
25	70	BLUE SHALE WITH CLAY
70	200	GRAYISH BLUE SHALE WITH QUARTZ

Casings

Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specificatons	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	20	Blank	Low Carbon Steel	N/A	0.188	8.625			*
2	0	80	Blank	Low Carbon Steel	N/A	0.188	6.625			*
2	80	160	Other: KNIFE	Low Carbon Steel	N/A	0.188	6.625		0.25	*
2	160	180	Blank	Low Carbon Steel	N/A	0.25	6.625			*
2	180	200	Other: KNIFE	Low Carbon Steel	N/A	0.25	6.625		0.25	*

Annular Material

Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	20	Bentonite	Non Hydrated Bentonite		3/8 HOLE PLUG
20	200	Other Fill	See description.		NO ANNULAR FILL

Other Observations:

Borehole Specifications

Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	20	13
20	200	7.475

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name: WATSON WELL DRILLING, INC. (Person, Firm or Corporation)

500 Summer Street (Address) | Eureka (City) | CA (State) | 95501 (Zip)

Signed: *electronic signature received* (C-57 Licensed Water Well Contractor) | 08/08/2018 (Date Signed) | 1014048 (C-57 License Number)

DWR Use Only

CSG #	State Well Number	Site Code	Local Well Number

				N

Latitude Deg/Min/Sec

					W

Longitude Deg/Min/Sec

TRS:

APN:

Six Rivers National Forest Area, California

256—Hecker family, deep, 35 to 70 percent slopes

Map Unit Setting

National map unit symbol: hsb9
Elevation: 2,200 to 4,800 feet
Mean annual precipitation: 50 to 70 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Hecker family, deep, and similar soils: 60 percent
Minor components: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hecker Family, Deep

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from metasedimentary rock

Typical profile

H1 - 0 to 13 inches: gravelly loam
H2 - 13 to 60 inches: very gravelly clay loam
H3 - 60 to 64 inches: weathered bedrock

Properties and qualities

Slope: 35 to 70 percent
Depth to restrictive feature: 60 to 64 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Rock outcrop
Percent of map unit: 10 percent
Hydric soil rating: No

Soulajule, deep
Percent of map unit: 10 percent
Hydric soil rating: No

Oxalis, deep
Percent of map unit: 10 percent
Hydric soil rating: No

Melbourne, deep
Percent of map unit: 10 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Six Rivers National Forest Area, California
Survey Area Data: Version 15, Sep 6, 2021