WorleyParsons
resources & energy

DOCKET
09-AFC-8
DATE MAR 16 2010
RECD. MAR 16 2010

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Letter of Transmittal

March 16, 2010

To: California Energy Commission
Attention: Docket No. **09-AFC-8**
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

From: Mike Tietze
WorleyParsons
2330 East Bidwell, Suite 150
Folsom, CA 95630
(916) 817-3940

Dear Dockets:

As requested, please find a complete original of the Supplemental Groundwater Resources Investigation for Genesis Solar Power Project attached, as described below.

Pursuant to the provisions of Title 20, California Code of Regulation, WorleyParsons, consultant to Genesis Solar, LLC, hereby submits the Genesis Solar Energy Project Draft Decommissioning and Closure Plan. The Genesis Solar Energy Project is a 250 megawatt solar electric generating facility to be located between the community of Desert Center and the city of Blythe in eastern Riverside County, California.

This report is submitted as a supplementary report and accompanying data including figures, tables and, to the Genesis Solar Energy Project Application for Certification and Genesis Solar Energy Project Application for Certification Data Requests, Sets 1A and 1B. A hard copy and electronic copy (CD) are included herein.

Please feel free to contact me with any questions or concerns at (916) 817-3931

Sincerely,
WorleyParsons Group Inc.

Mike Tietze
Manager, Infrastructure and Environment

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION FOR THE
GENESIS SOLAR ENERGY PROJECT

Docket No. 09-AFC-8

PROOF OF SERVICE
(Revised 1/26/10)

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*indicates change

DECLARATION OF SERVICE

I, Mike Tietze, declare that on March 16, 2010, I served and filed ***Supplemental Groundwater Resources Investigation for Genesis Solar Power Project, Riverside, CA for the Genesis Solar Energy Project*** dated February 22, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[http://ww.energy.ca.gov/sitingcases/genesis_solar].**

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(***Check all that Apply***)

FOR SERVICE TO ALL OTHER PARTIES:

__x__ sent electronically to all email addresses on the Proof of Service list;

__x__ by personal delivery or by depositing in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

__x__ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (***preferred method***);

OR

__x__ depositing in the mail an original and 8 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 09-AFC-8
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct.

Original Signed By:

Mike Tietze

WorleyParsons
resources & energy

Environment & Water Resources
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March 10, 2010

52004617

Genesis Solar LLC

700 Universe Blvd.
Juno Beach, FL 33408
Attn: Mike Pappalardo, Environmental Manager

Re: Supplemental Groundwater Resources Investigation for Genesis Solar Power Project, Riverside County, CA

Dear Mr. Pappalardo:

This memorandum documents the procedures used for implementation of a supplemental test well and aquifer pump testing program to investigate the water supply characteristics of the groundwater-bearing sediments for the proposed Genesis Solar Energy Project in Riverside County, California (the Project). The objectives of the program were to investigate the hydrostratigraphy, aquifer parameters and water quality in the southern portion of the proposed right-of-way for the off-site transmission line and access road, about ½ mile to the northwest of Wiley's Well Rest Stop, on U.S. Interstate 10. The location of the supplemental test well site is shown on **Figure 1**. The test well site layout is shown on **Figure 2**.

BACKGROUND

The hydrogeology of the Project area was described in detail in the *Groundwater Resources Investigation, Genesis Solar Energy Project*, prepared by WorleyParsons and dated January 8, 2009. The principal water-bearing strata in the Chuckwalla Valley Groundwater Basin are Quaternary Alluvium, including alluvial fan, valley axial and lacustrine facies; the Pliocene Bouse Formation, consisting of either lacustrine or estuarine facies; and the Miocene Fanglomerate, consisting of cemented alluvial fan facies. The Project proposes to utilize groundwater production wells screened in the middle to lower Bouse Formation and the underlying Fanglomerate between depths of approximately 800 and 1,800 feet below ground surface (bgs). Work associated with implementation of the supplemental test well and aquifer testing program included construction of a multiple completion test well to a depth of 1,835 feet bgs, with three screened intervals in the Bouse Formation and one screened interval in the Fanglomerate. This work was followed by isolation of the multiple completion zones and implementation of three constant discharge pumping tests to further characterize aquifer properties in the middle and lower portion of the Bouse Formation and in the underlying Fanglomerate. Groundwater samples were collected during the pumping tests to collect additional data regarding water quality in these formations.

SUMMARY OF WORK PERFORMED

PRE-FIELD ACTIVITIES

A Project Safety Plan was prepared for the work. In addition, the following permits were obtained for the work:

- A project description was submitted to the United States Department of the Interior, Bureau of Land Management (BLM) and a Determination of NEPA Compliance was issued by BLM on November 12, 2009. The Determination of NEPA Compliance is included in **Attachment 1**.
- Well installation permits were obtained from the Riverside County Department of Health Services and are included in **Attachment 1**.
- A Notice of Intent (NOI) was filed with the Colorado River Basin Regional Water Quality Control Board (RWQCB) to discharge groundwater from well development activities and the aquifer pumping test to a spray field. The NOI and Letter of Authorization from the RWQCB are included in **Attachment 1**.

TEST WELL INSTALLATION (TW-2)

The test well was constructed at the site by drilling a 10-inch diameter boring to approximately 1,835 feet bgs using the Mud Rotary drilling method. Cuttings samples were obtained at approximately 10-foot vertical intervals and a lithologic log was prepared in accordance with Unified Soil Classification System (USCS) methodologies and American Society of Testing Materials (ASTM) guidelines. The well construction details and lithologic log are included as **Attachment 2**.

Following the drilling of the borehole, the mud was conditioned and a down-hole geophysical survey of the borehole was performed by Pacific Surveys. The geophysical suite included acoustic (sonic) velocity, variable density, short and long normal resistivity, lateral log, spontaneous potential, dual induction, gamma-ray, borehole deviation, and caliper. The results of the survey are included in **Attachment 3**. The final lithologic log was adjusted based on geophysical logging of the test well.

Following the geophysical survey, the well was installed to approximately 1,835 feet bgs using 5-inch diameter mild steel casing and wire wound screen with 0.040-inch perforations. Four screened intervals were positioned at depths of approximately 1820 to 1739, 1601 to 1439, 1123 to 1042, and 874 to 792 feet bgs. These screened intervals are designated at Zones 1, 2, 3, and 4 (respectively, from lowest to highest). Annular materials (*i.e.*, No. 3 gradation sand, No. 2/16 gradation transition sand, bentonite, and cement grout) were tremie piped into the borehole around the blank casing and well screen. Sand pack materials were placed to depths at least 5 feet above and below the screened intervals, and bentonite seals consisting of hydrated bentonite chips were set above and below the sand filter packs. Bentonite grout was placed from approximately 50 to 715 feet bgs. A 50-foot neat cement seal was installed in the uppermost portion of the well according to California Well Standards (Bulletin 74-90) and County of Riverside well permit requirements. A-3 foot concrete seal was poured at the top of the well, and a concrete pad was constructed around the well at the surface. The well surface assembly consists of a locking monument surface completion. Work at the project site was completed on February 8, 2010.

Following well construction (during the period from December 10 to 17, 2009), each of the four screened intervals were individually developed by bailing, jetting, air lift pumping and surging until residual drilling mud was removed and the removed water was observed to be relatively clear and free of sediment. Groundwater parameters (including pH, EC, temperature, and turbidity) were measured during purging.

PUMPING TESTS

Pumping tests were conducted by isolating the pumped intervals using K-Packer systems, installing wireless recording transducers in the lower portions of the well and pressure transducers with vented cables in the upper portions of the well to measure water levels prior to and during the pumping tests, and installing a Grundfos 75S100-16 pump and motor in the upper portion of the well. The configuration of the packer system, transducers and pump for each test is shown on the drawings included in **Attachment 4**. Details regarding the pumping tests are summarized below.

Table 1 – Pumping Test Summary

Tested Zones	Start Date	Static Water Level at Beginning of Test (feet btoc)	Pumping Duration	Average Discharge Rate
Zone 1 (Fanglomerate)	02/01/10	133.70	24 hours	50 gpm
Zone 2 (Lower Bouse Fm)	01/18/10	128.40	72 hours	81 gpm
Zone 3 & 4 (Middle Bouse Fm)	01/05/10	132.37	72 hours	88 gpm

During the pumping tests, groundwater discharge was periodically monitored using a flow totalizer and flow meter and recorded. A continuous (24-hours/day) source of power to the pump was maintained for the duration of the pumping tests. Real-time monitoring of pressure transducer data in the data logger was conducted to assess drawdown magnitude and verify the pressure transducers were functioning properly. Electrical conductivity, pH, and total dissolved solids (TDS) measurements were collected at regular intervals for the duration of the test using a Hannah Instruments multimeter. These field measurements are summarized on data sheets included in **Attachment 5**.

Groundwater samples were collected from the pump discharge at the beginning, middle and end of the pumping tests and analyzed for general mineral parameters, major cations and anions, ammonia trace metals, and gross alpha radiation. The laboratory reports for these analyses are included in **Attachment 6**.

Pump test water was discharged to a holding tank and disposed to a spray field under permit from the RWQCB. The spray field was moved periodically to decrease salt loading of the ground surface and prevent runoff.

After completion of the pumping tests, the pump was removed from the well and the spray field was demobilized. A series of three K-Packers was pushed into place between the Zone 2 and Zone 3

screened intervals to prevent vertical circulation of water in the well between the upper and lower screened intervals.

FINDINGS

HYDROSTRATIGRAPHIC INTERPRETATION

The location of TW-2 relative to the project site and significant features in the groundwater basin is presented in **Figure 1**. Cross section locations are shown on **Figure 3** and a cross section through TW-2 is presented in **Figure 4**. The Quaternary Alluvium underlying the site consists predominantly of finer grained sediments with limited medium grained and coarse sediments in the upper 150 feet. These sediments are interpreted to primarily represent distal alluvial fan and lacustrine facies. The Bouse Formation is interpreted to underlie these sediments at a depth of approximately 250 feet bgs. Some medium grained and coarse grained strata were logged in the upper 200 feet of the Bouse Formation but the majority of the Bouse Formation to a depth of approximately 770 feet bgs is dominated by silt and clay that may be associated primarily with lacustrine depositional environments upstream of the narrows that constrict the outflow from the Chuckwalla Valley to the adjacent Palo Verde Mesa. Coarse grained sand and gravel units were encountered between 770 and 930 feet and between 1,020 and 1,150 feet bgs and are likely associated with incursions of fluvial deposition. Below this depth, interbedded, sandy silt, sandy clay and some clayey or silty sand were encountered to a depth of approximately 1,730 feet bgs. This interval is a more monotonous sequence and may be associated with longer term lacustrine or estuarine depositional environments. The deepest stratum encountered during the drilling program underlies these deposits at a depth of approximately 1730 feet and consists of coarse gravels, cobbles and sands. These deposits are interpreted to be associated with the Miocene Fanglomerate, derived from nearby mountains during tectonic uplift during that time.

The general sequence of sediments described above appears substantially similar to other closely logged borings in the eastern Chuckwalla Valley; however, the depths of specific coarse grained units cannot be widely correlated based on the available data. Based on this observation and the results of the pumping test of units in the middle Bouse Formation, described below, coarse grained units in this part of the basin appear to be of relatively limited lateral continuity.

ANALYTICAL RESULTS

Complete analytical reports for samples collected during the pumping tests are included in **Attachment 6**. The analytical results were generally similar for samples collected during development and throughout the pumping tests. Analytical results for key water quality constituents detected in the samples collected at the ends of the pumping tests are summarized in the table below. For most major constituents, the water quality for each of the tested intervals is remarkably similar. Concentrations of Total Dissolved Solids are above 3,000 milligrams per liter (mg/L) throughout the tested interval.

Table 2 – Results of Laboratory Analyses of Final Pumping Test Samples

Parameter	Reporting Limits	Zone 1	Zone 2	Zones 3 & 4
pH (Std. pH Units)		8.2	8.0	8.0
Specific Conductance (mS/cm)	0.01	5500	5400	5500
Total Dissolved Solids (mg/L)	25	3100	3100	3000
Fluoride (mg/L)	0.13	5.5	5.2	5.2
Chloride (mg/L)	25	1500	1500	1400
Nitrate (NO3)-N (mg/L)	0.25	ND	ND	ND
Nitrogen (Ammonia as N) (mg/L)	0.1	Not Analyzed	Not Analyzed	0.14
Sulfate (SO4) (mg/L)	25	460	500	500
Alkalinity, Bicarbonate (as CaCO3)	10	48	58	56
Alkalinity Carbonate (as CaCO3)	10	ND	ND	ND
Alkalinity, Hydroxide (as CaCO3)	10	ND	ND	ND
Alkalinity, Total (as CaCO3)	10	48	58	56
Hardness, Calcium (calc as mg/L CaCO3)	0.5	290	310	260
Total Hardness (calc as CaCO3)	2.5	300	320	270
Calcium (Ca) (mg/L)	0.5	98	120	100
Sodium (Na) (mg/L)	5	880	1000	1000
Magnesium (Mg) (mg/L)	0.5	1.7	3.4	3.8
Potassium (K) (mg/L)	0.5	19	21	18
Manganese (Mn) (mg/L)	0.005	0.080	0.093	0.085
Iron (Fe) (mg/L)	0.3	0.35	0.73	0.5
Copper (Cu) (mg/L)	0.01	ND	ND	ND
Zinc (Zn) (mg/L)	0.1	0.052	ND	ND
Silica (SiO2) (mg/L)	2	33	37	Not Analyzed
Dissolved Silica (SiO2) (mg/L)	1.0	40	40	34
Sulfide (mg/L) (mg/L)	0.1	ND	ND	ND
Phosphorus, Total (as P) (mg/L)	0.1	ND	ND	ND
Phosphate, Ortho-P (mg/L)	0.25	ND	ND	ND
Arsenic (As) (mg/L)	0.005	0.024	0.022	0.025
Selenium (Se) (mg/L)	0.005	ND	ND	ND
Lead (Pb) (mg/L)	0.005	0.013	ND	ND

Notes:
mS/cm – milli-Siemens/centimeter
mg/L – milligrams per liter
ND – not detected at or above the laboratory reporting limit

PUMPING TEST ANALYSIS

Pumping test drawdown and recovery curves for the pumping tests are included in **Attachment 7**. Also shown are the slopes of matched curves used to derive transmissivity values. A summary of these analyses is provided in the table below.

Table 3 – Pumping Test Analysis Results

Test	Potential Effects and Corrections	Duration of Matched Interval	Calculated Transmissivity (ft^2/day)	Calculated K (ft/day)	Data Quality
Zone 1 Drawdown	Barometric correction	330 min; late data	397	5.0	Poor
Zone 1 Recovery	Barometric correction	1,260 min	2,329	29	Fair
Zone 2 Drawdown	Barometric correction	18.1 min; early data	772	4.8	Poor
Zone 2 Recovery	Barometric correction; Temperature fluctuation may introduce slight upward bias	4,313 min	842	5.3	Good
Zone 3 & 4 Drawdown	Barometric and baseline correction.	1,000 min; early to middle data	2,110	13.2	Fair
Zone 3 & 4 Recovery	Barometric and baseline; Temperature fluctuation may introduce slight upward bias	4,382 min	2,466	15.4	Good

The drawdown data for the pumped intervals were corrected using barometric data collected during the tests. Water level data were collected prior to test initiation and a trend observed in the data collected prior to the Zone 3 and 4 test was used to correct the drawdown and recovery data. This trend is graphed in Attachment 8, and is indicative of recovery from aquifer stress. It is likely that prior to the test, groundwater was flowing out of Zones 3 and 4 into the well, and out of the well in the deeper zones that with lower water pressures. In general, later time drawdown data are considered more representative of aquifer conditions because they represent a larger volume of aquifer. In addition, when curve match periods are longer and correlation factors are higher, the data are generally considered to be of better quality. On this basis, the most reliable aquifer test results are represented by the recovery data from all three tests. These results are also the most consistent with anticipated transmissivities based on lithologic interpretation.

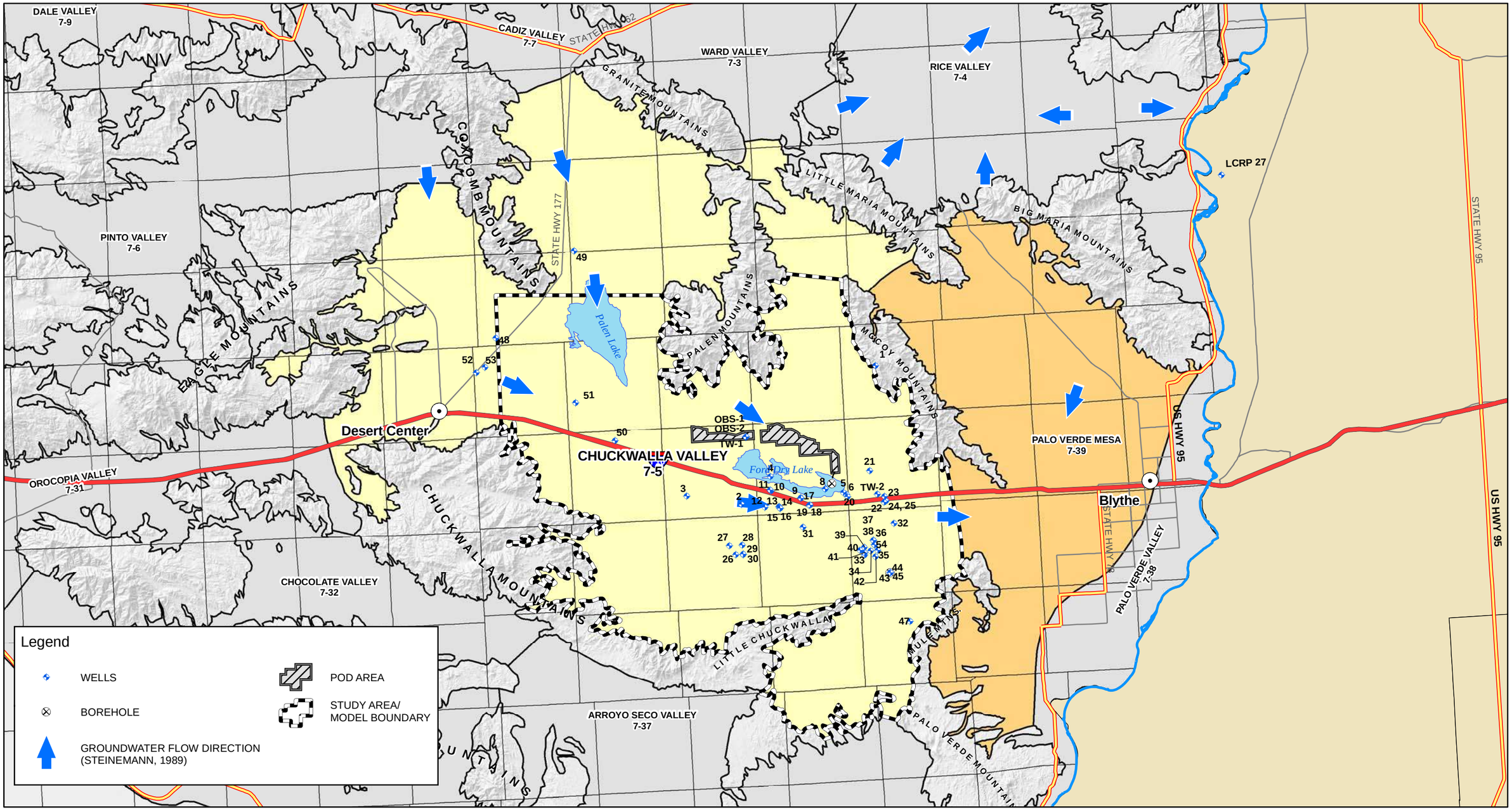
The average hydraulic conductivity for the three pumped intervals is 17 feet/day. Applying the measured hydraulic conductivity values to the entire interval between 770 and 1,835 feet bgs based on the observed lithologies yields an average hydraulic conductivity for the middle to lower Bouse Formation and upper Fanglomerate of approximately 10 feet/day. These hydraulic conductivity values are substantially similar to the average values calculated for the eastern Chuckwalla Valley

Groundwater Basin and used in the numerical groundwater flow model prepared to evaluate the potential impacts associated with groundwater pumping for the project. The hydraulic conductivity of Zones 3 and 4 is lower than would generally be expected based on the observed sand and gravel lithology observed in these intervals. These results may indicate that the coarse grained sediments penetrated in these zones are of limited lateral extent.

Sincerely,
WorleyParsons

Michael Tietze
Infrastructure & Environment Location Manager

REGISTERED GEOLOGIST
MIKE TIETZE
No. EG1803
Exp. 30-Apr-2011
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA



SOURCE:
SDC Major Roads
USGS 30 Meter NED (Hillshade)
CASIL Groundwater Basins
All locations approximate

N S E W

0 10
Miles

GENESIS SOLAR, LLC

WorleyParsons
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HYDROGEOLOGIC SETTING

SWL	NB	12/2009
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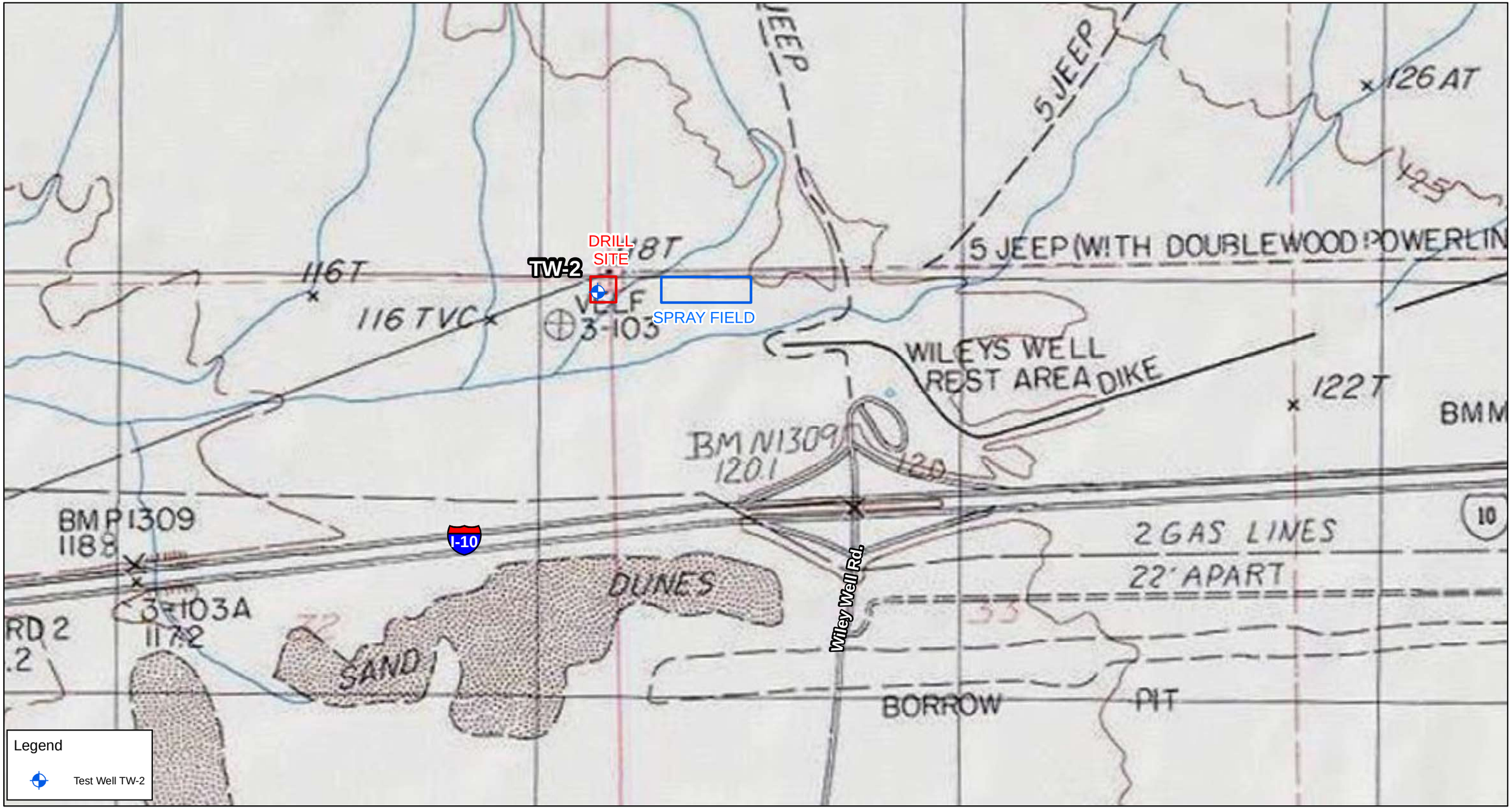

SOURCE:
USGS, ESRI
All locations approximate

N
W E
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0 750
Feet

GENESIS SOLAR ENERGY, LLC

WorleyParsons
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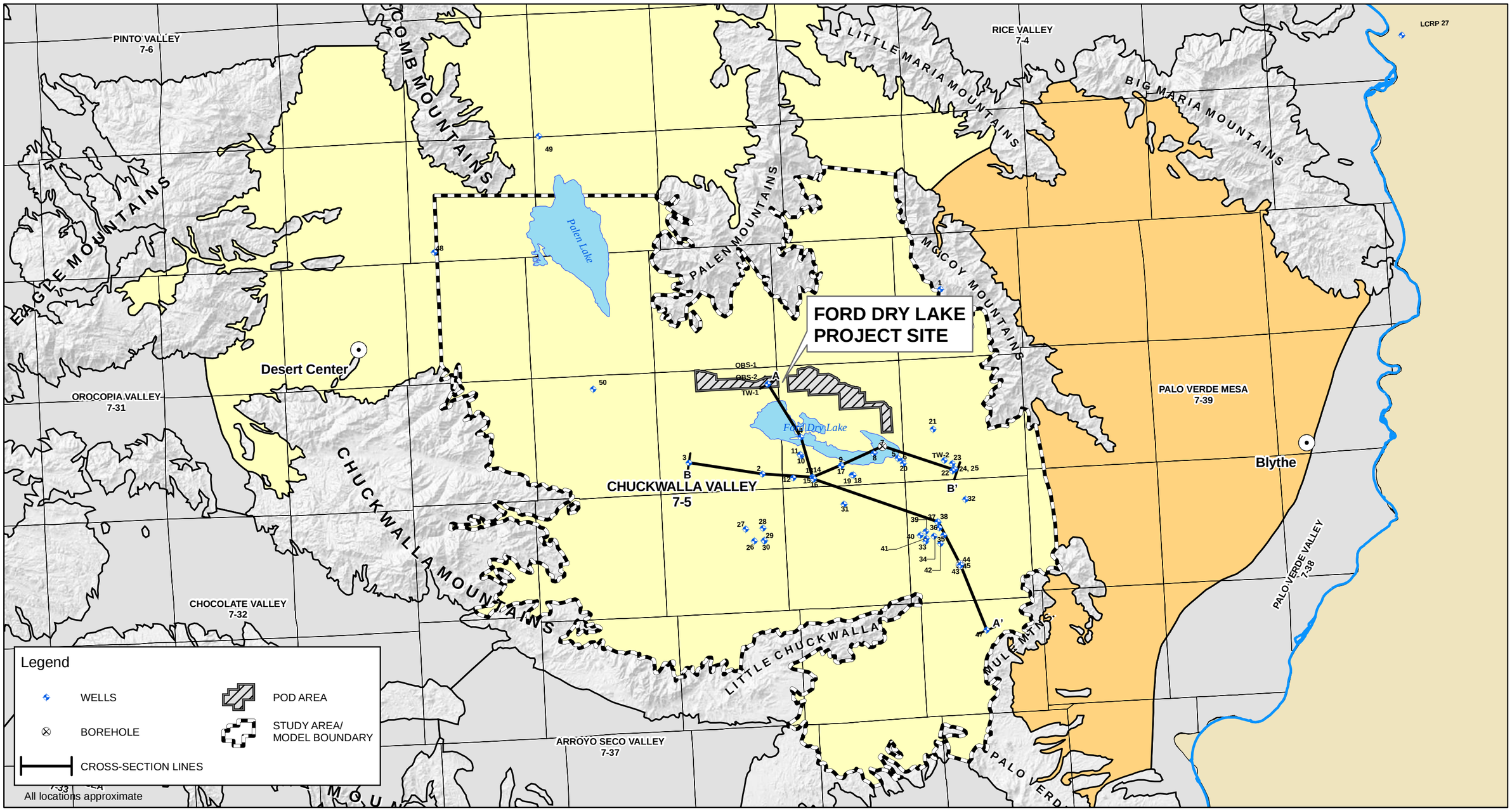
SITE LOCATION OF TEST WELL TW-2

SWL	EB	3/2010
52011206		2



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GENESIS SOLAR, LLC

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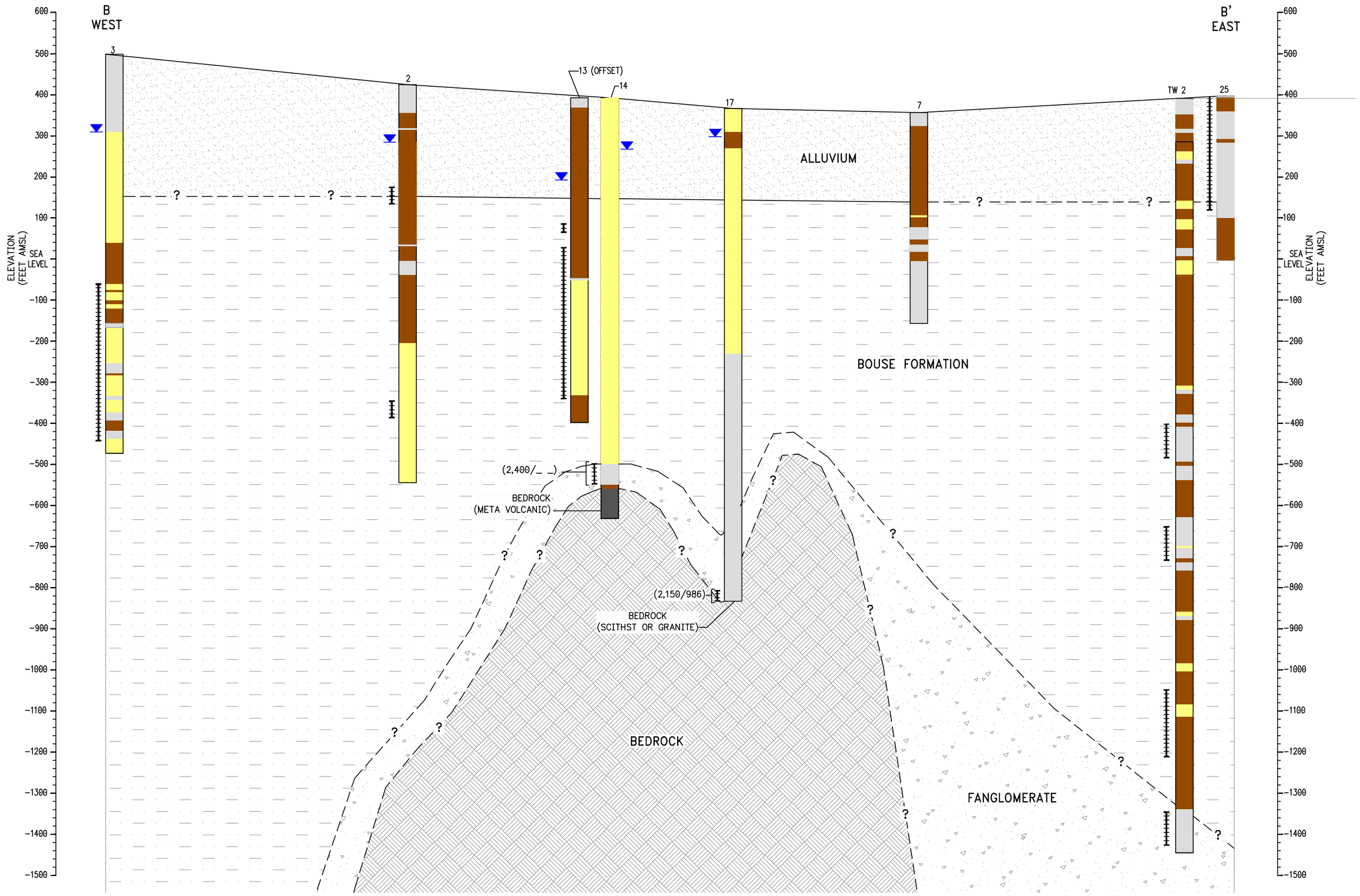
HYDROSTRATIGRAPHIC CROSS-SECTION LINES

SWL	NB	12/2009
52004617	3	



NOTES:

1. TDS = TOTAL DISSOLVED SOLIDS

LEGEND

- FINE GRAINED – SILT AND/OR CLAY MATRIX
- INTERMEDIATE GRAINED – COMBINATION OF FINE GRAINED AND COARSE GRAINED SEDIMENTS WITH A COARSE GRAINED MATRIX
- COARSE GRAINED – SAND AND/OR GRAVEL MATRIX LITTLE OR NO FINES
- BEDROCK

(_ _) UNKNOWN CONCENTRATION

(2,150/986) TDS/CHLORIDE CONCENTRATION MILLIGRAMS PER LITER (MG/L)

STATIC GROUND WATER LEVEL

WELL SCREEN

? – – – – ? DASHED WHERE INFERRED

1/2 mi — 1 mi
HORZ SCALE

200 — 100
VERT SCALE

GENESIS SOLAR, LLC	WorleyParsons resources & energy		
HYDROSTRATIGRAPHIC CROSS SECTION B – B'	RLG	NB	7/2009
	52004617	6	

WorleyParsons
resources & energy

Environment & Water Resources
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ATTACHMENT 1: PERMITS

Documentation of Land Use Plan Conformance and NEPA Adequacy (DNA)
DOI-BLM-CA-060-0010-0010-DNA
U.S. Department of the Interior
Bureau of Land Management
Palm Springs-South Coast Field Office

Note: This worksheet is to be completed consistent with the policies stated in the Instruction Memorandum entitled Documentation of Land Use Plan Conformance and National Environmental Policy Act (NEPA) Adequacy transmitting this worksheet and the Guidelines for Using the DNA Worksheet located at the end of the worksheet. (Note: The signed CONCLUSION at the end of this worksheet is part of an interim step in the BLM's internal analysis process and does not constitute an appealable decision.)

A. **BLM Office:** Palm Springs-South Coast **Lease/Serial/Case File No.** CACA 51198 & CACA 51202

Proposed Action Title/Type: Temporary Use Permit for Supplemental Test Well and Aquifer Testing

Location of Proposed Action: Wiley's Well, Riverside County, T.6 S., R.20 E., Sections 28, 29, 32, and 33, SBBM

Description of the Proposed Action: BLM proposes to issue a Temporary Use Permit to Genesis Solar for the installation of one test well on public land near the Wiley's Well Rest Area. The test well would be used to supplement information from their existing test wells about the groundwater and aquifer characteristics of the project area for their proposed Genesis Solar Energy Project. A complete description of the proposed action is included in the attached EA (DOI-BLM-CAD-060-0009-0008) for the existing wells and the Genesis Solar Energy Project Supplemental Test Well Installation and Aquifer Testing Project Description.
Applicant (if any): Genesis Solar, LLC

B. Conformance with the Land Use Plan (LUP) and Consistency with Related Subordinate Implementation Plans

LUP Name*	California Desert Conservation Area Plan	Date Approved 1980
LUP Name*	Northern and Eastern Colorado Desert Coordinated Management Plan (CDCA Plan Amendment)	Date Approved 2002

*List applicable LUPs (e.g., Resource Management Plans or applicable amendments).
**List applicable activity, project, management, water quality restoration, or program plans.

C. The proposed action is in conformance with the applicable LUPs because it is specifically provided for in the following LUP decisions:

The action is addressed in the Energy Production and Utility Corridors Element of the CDCA Plan under Decision Criteria (pg. 93) and Alternative Energy Sources (pg. 95). The proposed

action is on lands designated as Multiple Use Classes L and M. Class L lands will be managed to provide for the protection and enhancement of surface and groundwater resources. Proposed wind and solar projects may be considered on Class L lands. Class M lands will be managed to minimize degradation of water resources. Proposed wind and solar projects may be considered on Class M lands.

Identify the applicable NEPA document(s) and other related documents that cover the proposed action.

DOI-BLM-CA- 060-0009-0008 Temporary Use Permit for Solar Irradiation Meters and Water Test Wells Installation, 10/27/08

D. NEPA Adequacy Criteria

1. Is the current proposed action substantially the same action (or is a part of that action) as previously analyzed?

Documentation of answer and explanation: The proposed action is substantially the same as the action covered under EA # DOI-BLM-CA-060-0009-0008. The proposed action includes an additional well, in the same location as the authorized test wells, to be used for the same water quality testing as identified in the existing EA.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the current proposed action, given current environmental concerns, interests, resource values, and circumstances?

Documentation of answer and explanation: There is no substantial difference in the proposed action and the alternatives analyzed in EA # DOI-BLM-CA-060-0009-0008.

3. Is the existing analysis adequate and are the conclusions adequate in light of any new information or circumstances (including, for example, riparian proper functioning condition [PFC] reports; rangeland health standards assessments; Unified Watershed Assessment categorizations; inventory and monitoring data; most recent Fish and Wildlife Service lists of threatened, endangered, proposed, and candidate species; most recent BLM lists of sensitive species)? Can you reasonably conclude that all new information and all new circumstances are insignificant with regard to analysis of the proposed action?

Documentation of answer and explanation: The existing test wells were analyzed and authorized in the summer of 2009. Given that the existing analysis was recently completed, and the proposed action is substantially the same, and is in the same area, the conclusions have not changed and are considered adequate for this DNA.

4. Do the methodology and analytical approach used in the existing NEPA document(s) continue to be appropriate for the current proposed action?

Documentation of answer and explanation: The methodology and analytical approach are the same as that conducted for the existing wells covered under the existing EA.

5. Are the direct and indirect impacts of the current proposed action substantially unchanged from those identified in the existing NEPA document(s)? Does the existing NEPA document sufficiently analyze site-specific impacts related to the current proposed action?

Documentation of answer and explanation: The proposed action is substantially the same as, and is an extension of, the action covered under the existing EA. Direct and indirect impacts are considered the same.

6. Can you conclude without additional analysis or information that the cumulative impacts that would result from implementation of the current proposed action are substantially unchanged from those analyzed in the existing NEPA document(s)?

Documentation of answer and explanation: The proposed action is substantially the same as, and is an extension of, the action covered under the existing EA. Cumulative impacts are considered the same.

7. Are the public involvement and interagency review associated with existing NEPA document(s) adequately for the current proposed action?

Documentation of answer and explanation: The proposed action is substantially the same as, and is an extension of, the action covered under the existing EA. Public involvement and interagency review is considered adequate.

E. Interdisciplinary Analysis: Identify those team members conducting or participating in the preparation of this worksheet.

Name	Title	Resource Represented
Greg Hill	Planning and Env. Coord.	NEPA
Chris Dalu	Archaeologist	Cultural Resources

F. Mitigation Measures: List any applicable mitigation measures that were identified, analyzed, and approved in relevant LUPs and existing NEPA document(s). List the specific mitigation measures or identify an attachment that includes those specific mitigation measures. Document that these applicable mitigation measures must be incorporated and implemented.

Although biological and cultural resource inventories were conducted for EA # DOI-BLM-CA-060-0009-0008, additional surveys were conducted for the site proposed under this DNA. An archaeologist or cultural resource monitor and a biological monitor will be present on-site during any installation activities. Standard stipulations and Best Management Practices required under EA # DOI-BLM-CA-060-0009-0008 will also apply to this DNA.

CONCLUSION

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the existing NEPA documentation fully covers the proposed action and constitutes BLM's compliance with the requirements of NEPA.

Note: If one or more of the criteria are not met, a conclusion of conformance and/or NEPA adequacy cannot be made and this box cannot be checked. The signed CONCLUSION at the end of this worksheet is part of an interim step in the BLM's internal analysis process and does not constitute an appealable decision.

John R Kelly Field Manager
Signature of the Responsible Official

11/12/09
Date

COUNTY OF RIVERSIDE COMMUNITY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
38686 El Cerrito Road – Palm Desert, CA. 92211

FAX TRANSMISSION COVER SHEET

DATE: November 16, 2009

TO: Worley Parsons
Attn: Michele Scott
FAX#: (916) 983-1935

FROM: Terri V. Moreno, OA III

RE: Well Permit No. WP-20447 (Bureau of Land Management)

MESSAGE: F.Y.I

Sent from FAX Telephone Number: (760) 863-7013
Please confirm receipt by contacting our office at (760) 393-3390

Number of Pages Following: 3

RIVERSIDE COUNTY COMMUNITY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

WELL DRILLING PERMIT

WP#: 20447

ALL ELECTRICAL, PLUMBING, MECHANICAL, AND STRUCTURAL REPAIRS AND INSTALLATIONS SHALL BE DONE UNDER PERMIT FROM RIVERSIDE COUNTY DEPT. OF BUILDING AND SAFETY.

Approved Date : 11/10/09

Expiration Date : 5/10/2010

Fee : $ 157.08
(non-refundable)

This permit is granted on condition that the person named in the permit will comply with the laws, ordinances and regulations that are now or may hereafter be in force. (This is not a permit to operate a water system.)

APN: 818-231-027 Sec. 34 ; T 6S ; R 21E

PERMIT DESCRIPTION : Industrial Well

PHYSICAL ADDRESS/LOCATION OF WELL : Genesis Ford Dry Lake
Blythe, CA.

OWNER : Bureau of Land Management
1201 Fird Center Drive
Palm Springs, CA. 92262

DRILLER : WDC Exploration & Wells
COUNTY REGISTRATION # : PI0000034
PHONE # : (909) 931-4014

Note: It is the owner's responsibility to verify that a Driller's C-57 license is current with the California Contractors State Licensing Board.

Rpt. 5556, ver: 02/09

Distribution: Environmental Health ; Owner; Well Driller; Consultant

COUNTY OF RIVERSIDE
HEALTH SERVICES AGENCY
DEPT. OF ENVIRONMENTAL HEAL
38686 EL CERRITO ROAD
PALM DESERT, CA 92211

COUNTY OF RIVERSIDE COMMUNITY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
WELL PERMIT APPLICATION
(For Construction, Reconstruction & Destruction)

☐ 4080 Lemon Street, 2nd Floor / P.O. Box 1206 - Riverside, CA 92502 - (951) 955-8980
☐ 82675 Hwy. 111, CAC - Indio, CA 92201 - (760) 863-7000
☐ 39493 Los Alamos - Murrieta, CA 92563 - (951) 600-6180

CK# 2649 EHW010418 $157.00 (MA)

PLEASE REPLY TO ADDRESS CHECKED ABOVE

NOTE: Any abandoned wells on the property must be properly destroyed before an application for construction or reconstruction can be processed.

FOR DEPARTMENT USE ONLY
Permit No. WP-20447
Expiration 5/10/2010

Please Print

1. OWNER: Name Bureau of Land Management
Mailing Address 1201 Bird Center Drive
City Palm Springs State CA
Zip 92262 Phone No. 760-833-7104

2. DATE OF WORK (approximate):
Start 11-16-2009 Complete 12-18-2009

3. WELL DRILLER
Name WDC Exploration & Wells
Riv. Co. Registration No. WDR-09-0501
C-57 License No. #283326 (P10060034)

4. WELL CHECK (check)
☐ Community ☐ Monitoring ☒ Industrial
☐ Individual ☐ Cathodic ☐ Other
☐ Agricultural ☐ Horizontal

4A. FOR MONITORING WELL: (Name of Consultant)
Name Michele Scott Worley Parsons Phone 916-817-3940

5. TYPE OF WORK (check)
☒ New ☐ Reconstruction ☐ Destruction

5A. If reconstruction or destruction, please describe method on reverse side of attached Plot Plan.

6. ANNUAL SEAL:
Depth 20 ft.
Borehole Diam. 10 in.
Conductor Diam. N/A in.
Annular Thickness 2.5 in.
Sealing Material neat cement

7. DEPTH OF WELL (feet)
Proposed 1500' Existing N/A
DIAMETER OF BORE (in.) 10"

8. PRODUCTION WELL CASING INSTALLED:
☒ Steel ☐ Plastic ☐ Other

From (ft.)	To (ft.)	Dia. (in.)	Wall (Gage)
0	1500'	5'	Sch-40

GRAVEL PACK: ☒ Yes ☐ No
From ~~795'~~ 500' to 1500' ft.
Type of rig mud rotary

9. PERFORATIONS (if applicable):
From ~~795~~ 795' to 1500' ft.

10. SEALED ZONES (if applicable):
From N/A to ____ ft.

11A. The California Labor code requires Worker's Compensation Insurance as a prerequisite to permit issuance unless the applicant signs the following certificate: **I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers Compensation Insurance laws of California.**

Driller's Signature ____ Date ____

11B. I have read this application and agree to comply with all laws regulating the type of work being performed.

Driller's Signature [signature] Date 11/12/2009

12. I declare under penalty of perjury under the laws of the State of California that the information furnished as part of this application is true and correct. I also understand that I am legally obligated to obey all requirements of state law and Riverside County Ordinances in connection with the approval of this application.

Property Owner's Signature Holly L. Roberts Date 11/12/09

M.A.

DISPOSITION OF PERMIT

Approved subject to the following: **FOR DEPARTMENT USE ONLY**

A. Notify the Department, . forty-eight (48) hours in advance to make an inspection of the following operations:
☒ Prior to sealing of the annular space or filling of the conductor casing.
☐ Verify the depth of the conductor (outer) casing prior to further drilling and installation of the inner casing.
☐ After installation of the surface protective slab and pumping equipment.
☐ During destruction of wells, prior to pouring the sealing material.

B. Approved Plot Plan.

C. Submit to the Department within thirty (60) days after completion of work, a copy of:
☒ Water Well Driller's Report (DWR 188).

NOTE: Property located within the Rancho California Water District may be subject to an existing Agency Agreement with said District.

D. Other: ____

COUNTY OF RIVERSIDE COMMUNITY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

OWNER'S NAME: Bureau of Land Management

SITE: Genesis Ford Dry Lake

CITY: Blythe, CA

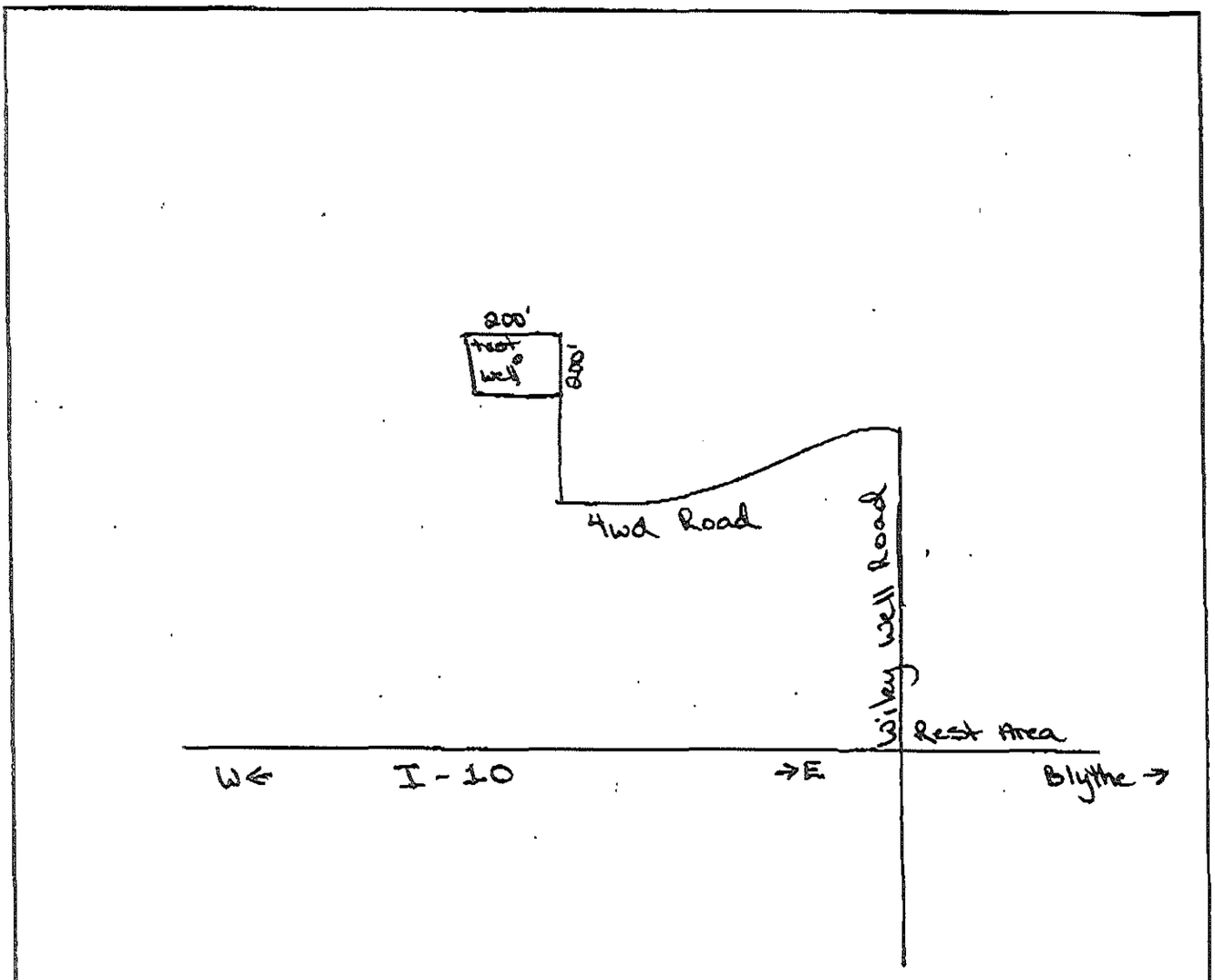
ASSESSOR'S P.M. NO.: 818231027

EHW 090418

Department Use Only

PERMIT NO. WP-20447

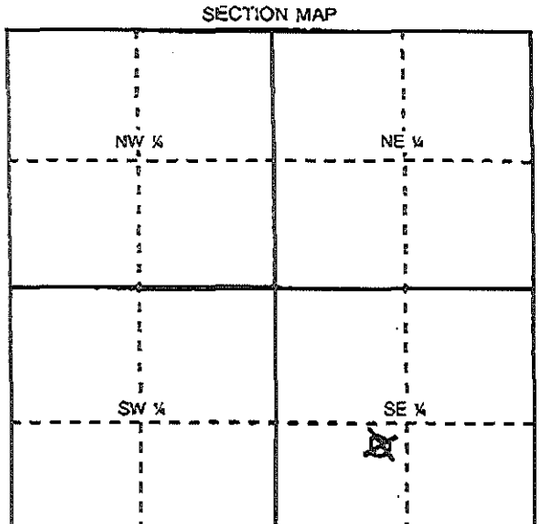
North



TOWNSHIP 6S RANGE 21E SECTION 34 ¼ SECT. SE ¼ ¼ ¼ SECT. SW

NOTE: Please see reverse side for information which must be shown on this Plot plan in order to process this permit application.

SECTION MAP



VICINITY MAP

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

State of California
Regional Water Quality Control Board

APPLICATION/REPORT OF WASTE DISCHARGE GENERAL INFORMATION FORM FOR WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT

I. FACILITY INFORMATION

A. Facility:

Name: Genesis Solar LLC			
Address: Wiley Well Road (see attached map)			
City: Blythe	County: Riverside	State: CA	Zip Code: 92225
Contact Person: Michele Scott		Telephone Number: 916-370-8685	

B. Facility Owner:

Name: Genesis Solar LLC			Owner Type (Check One) 1. ☐ Individual 2. ☐ Corporation
Address: 700 University Avenue			3. ☐ Governmental Agency 4. ☐ Partnership
City: Juno Beach	State: FL	Zip Code: 33408	5. ☑ Other: LLC
Contact Person: Meg Russell		Telephone Number: 561-304-5609	Federal Tax ID:

C. Facility Operator (The agency or business, not the person):

Name: WorleyParsons			Operator Type (Check One) 1. ☐ Individual 2. ☑ Corporation
Address: 2330 East Bidwell Street, #150			3. ☐ Governmental Agency 4. ☐ Partnership
City: Folsom	State: CA	Zip Code: 95630	5. ☐ Other:
Contact Person: Michele Scott		Telephone Number: 916-370-8685	

D. Owner of the Land:

Name: Bureau of Land Management			Owner Type (Check One) 1. ☐ Individual 2. ☐ Corporation
Address: 600 West Garnet Avenue			3. ☑ Governmental Agency 4. ☐ Partnership
City: North Palm Springs	State: CA	Zip Code: 92258	5. ☐ Other:
Contact Person: Allison Schaefer		Telephone Number: 760-833-7104	

E. Address Where Legal Notice May Be Served:

Address: Genesis Solar, LLC, C/O Worley Parsons, 2330 E. Bidwell St., #150		
City: Folsom	State: CA	Zip Code: 95630
Contact Person: Michele Scortt		Telephone Number: 916-370-8685

F. Billing Address:

Address: WorleyParsons, 2330 East Bidwell Street, #150		
City: Folsom	State: CA	Zip Code: 95630
Contact Person: Michele Scott		Telephone Number: 916-370-8685

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

State of California
Regional Water Quality Control Board

APPLICATION/REPORT OF WASTE DISCHARGE GENERAL INFORMATION FORM FOR WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT

II. TYPE OF DISCHARGE

Check Type of Discharge(s) Described in this Application (A or B):

☑ **A. WASTE DISCHARGE TO LAND** ☐ **B. WASTE DISCHARGE TO SURFACE WATER**

Check all that apply:

- ☐ Domestic/Municipal Wastewater Treatment and Disposal
- ☐ Cooling Water
- ☐ Mining
- ☐ Waste Pile
- ☐ Wastewater Reclamation
- ☐ Animal Waste Solids
- ☐ Land Treatment Unit
- ☐ Dredge Material Disposal
- ☐ Surface Impoundment
- ☐ Industrial Process Wastewater
- ☐ Animal or Aquacultural Wastewater
- ☐ Biosolids/Residual
- ☐ Hazardous Waste (see instructions)
- ☐ Landfill (see instructions)
- ☐ Storm Water
- ☑ Other, please describe: well drilling program development water

III. LOCATION OF THE FACILITY

Describe the physical location of the facility.

1. Assessor's Parcel Number(s)	2. Latitude	3. Longitude
Facility: 818-231-027	Facility: 33.6109	Facility: -114.9068
Discharge Point: 818-231-027	Discharge Point: 33.6109	Discharge Point: -114.9068

IV. REASON FOR FILING

- ☑ New Discharge or Facility
- ☐ Change in Design or Operation
- ☐ Change in Quantity/Type of Discharge
- ☐ Changes in Ownership/Operator (see instructions)
- ☐ Waste Discharge Requirements Update or NPDES Permit Reissuance
- ☐ Other: _____

V. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Name of Lead Agency: County of Riverside, Department of Environmental Health

Has a public agency determined that the proposed project is exempt from CEQA? ☑ Yes ☐ No

If Yes, state the basis for the exemption and the name of the agency supplying the exemption on the line below.

Basis for Exemption/Agency: well drilling permits are ministerial and do not require environmental review.

Has a "Notice of Determination" been filed under CEQA? ☐ Yes ☑ No

If Yes, enclose a copy of the CEQA document, Environmental Impact Report, or Negative Declaration. If no, identify the expected type of CEQA document and expected date of completion.

Expected CEQA Documents:

☐ **EIR** ☐ **Negative Declaration**

Expected CEQA Completion Date: _____

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

State of California
Regional Water Quality Control Board

APPLICATION/REPORT OF WASTE DISCHARGE
GENERAL INFORMATION FORM FOR
WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT

VI. OTHER REQUIRED INFORMATION

Please provide a COMPLETE characterization of your discharge. A complete characterization includes, but is not limited to, design and actual flows, a list of constituents and the discharge concentration of each constituent, a list of other appropriate waste discharge characteristics, a description and schematic drawing of all treatment processes, a description of any Best Management Practices (BMPs) used, and a description of disposal methods.

Also include a site map showing the location of the facility and, if you are submitting this application for an NPDES permit, identify the surface water to which you propose to discharge. Please try to limit your maps to a scale of 1:24,000 (7.5' USGS Quadrangle) or a street map, if more appropriate.

VII. OTHER

Attach additional sheets to explain any responses which need clarification. List attachments with titles and dates below:

> Finding of No Significant Impact, March 31, 2009, BLM Issued
> Decision Record, March 31, 2009, BLM Issued
> Riverside Co. letter, April 30, 2008
>Land Use Application and Permit, November 6, 2008, BLM Issued

You will be notified by a representative of the RWQCB within 30 days of receipt of your application. The notice will state if your application is complete or if there is additional information you must submit to complete your Application/Report of Waste Discharge, pursuant to Division 7, Section 13260 of the California Water Code.

VIII. CERTIFICATION

"I certify under penalty of law that this document, including all attachments and supplemental information, were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Print Name: Bill Paris **Title:** Vice President, Infrastructure

Signature: **Date:** November 3, 2009

FOR OFFICE USE ONLY

Date Form 200 Received:	Letter to Discharger:	Fee Amount Received:	Check #:

VI. Discharge Characterization

Test wells have no significant impact on air quality, visual resources, surface or ground water, any stream or body of water, existing noise levels or the surface of the land.

Following well installation, the well will be developed until the removed water becomes relatively clear and free of sediment. In addition, a 3 day on and 3 day recovery pumping test will be conducted, then a second 3 day on and 3 day recovery pumping test after for a total of 6 days of pumping. During this phase of construction, a truck and water tank or similar storage facilities will be mobilized to the site to temporarily store development water. Samples of the development water and clear groundwater produced after development will be analyzed to determine water quality for discharge to ensure compliance with the waste discharge requirements.

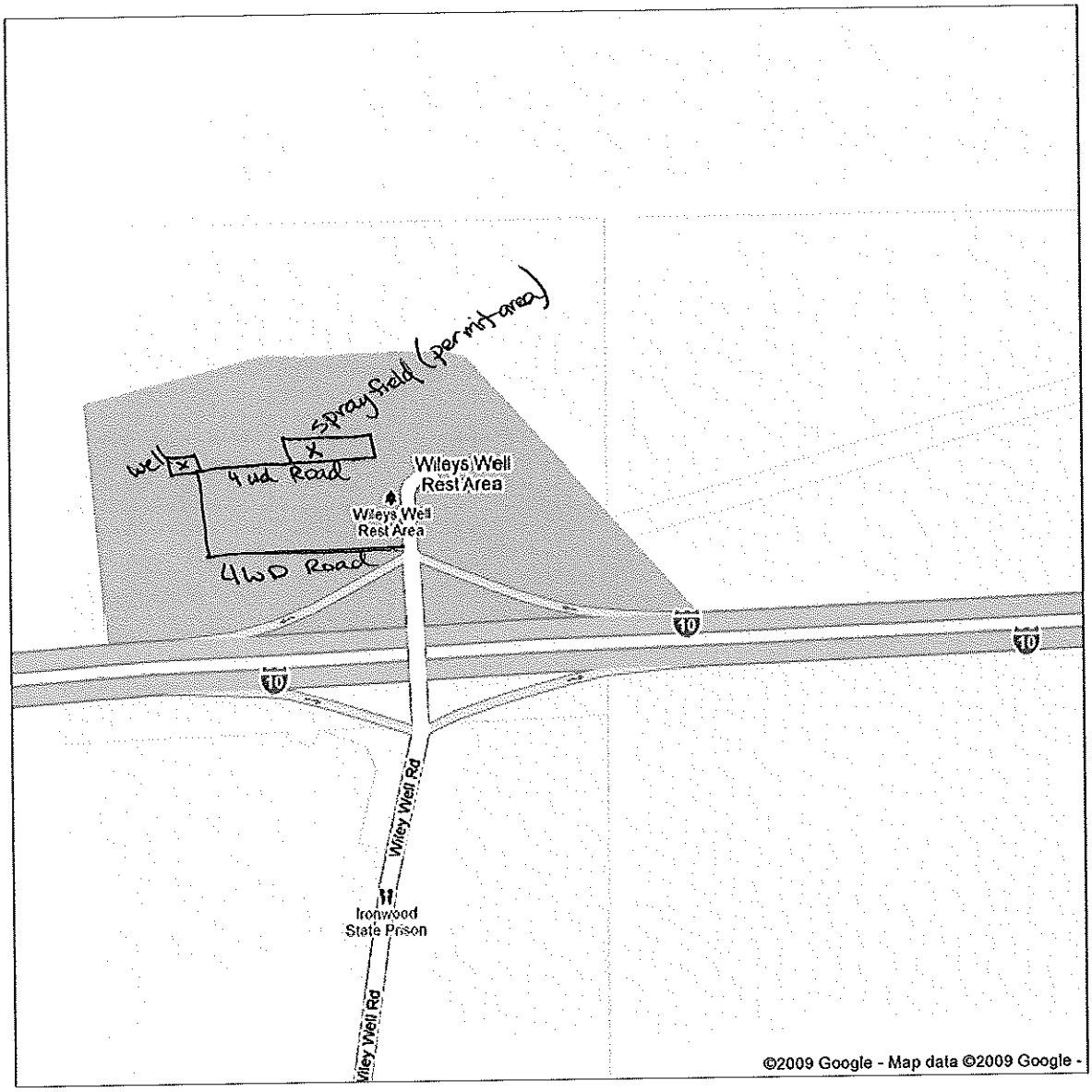
A sprayfield will be established to discharge the extracted development water. The field will be approximately 1 acre and discharge water at a rate of 100 to 200 gallons per minute. The field will be positioned to best promote infiltration and evaporation and prevent runoff and ponding. Fields may be repositioned during construction if needed to achieve this.

Following sampling, the water will be discharged from the tanks to the sprayfield using a water cannon or similar equipment and a gas-powered pump. The spray field will be established by placing portable irrigation pipe or hose along the dirt access road to the well location. The spray equipment will be sized and pumped at a maximum volume to avoid surface runoff to ephemeral streams and lake beds and maximize infiltration and evaporation of the water. It is estimated that the sprayfield equipment will distribute the water over an area of approximately 1 to 1.5 acres along the dirt road at a rate of approximately 100 to 200 gallons per minute. The volume of well development water that will be discharged is estimated to be up to 1,000,000 gallons total.

Discharge quantities will be recorded during both 3 day constant discharge pumping periods.

Google maps Address **Wiley Well Rd**
Blythe, CA

Get Google Maps on your phone
Text the word "GMAPS" to 466453



U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
PALM SPRINGS-SOUTH COAST FIELD OFFICE

FINDING OF NO SIGNIFICANT IMPACT
CA-660-09-08

NAME of PROJECT: Temporary Use Permit, Project Genesis Solar Irradiation Meters and Test Wells

FINDING OF NO SIGNIFICANT IMPACT: Environmental impacts associated with the proposed action have been assessed. Based on the analysis provided in the attached EA, I conclude the approved action is not a major federal action and will result in no significant impacts to the environment under the criteria in Title 40 Code of Federal Regulations 1508.18 and 1508.27. Preparation of an Environmental Impact Statement to further analyze possible impacts is not required pursuant to Section 102(2)(c) of the National Environmental Policy Act of 1969.

All cultural sites will be avoided as per the Environmental Assessment for the project.

3/31/09
Date

Field Manager
Palm Springs-South Coast Field Office
USDI Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
PALM SPRINGS-SOUTH COAST FIELD OFFICE

DECISION RECORD
CA-660-09-08

NAME of PROJECT: Temporary Use Permit, Project Genesis Solar Irradiation Meters and Test Wells

REGULATORY COMPLIANCE: The approved action is in conformance with the California Desert Conservation Area Plan (1980) as Amended, including the Northern and Eastern Colorado Desert Coordinated Management Plan (2002).
Under the analysis of this EA, no significant impacts to the human environment were identified and no Environmental Impact Statement is required.

Compliance with the mitigation measures identified in the EA is hereby required. These measures are incorporated into this decision record as stipulations by reference. A copy of this Decision Record and attendant conditions of approval (stipulations) shall be in the possession of the on-site operator during all undertakings approved herein.

DECISION: It is my decision to approve the proposed action as described in Environmental Assessment (EA) number CA-660-09-08.

Field Manager
Palm Springs-South Coast Field Office
USDI Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

3/31/09
Date

APPEALS: This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations at Title 43 of the Code of Federal Regulations (CFR), Part 4, and the information provided in Form 1842-1 (enclosed). If an appeal is taken, your notice of appeal must be filed in the Palm Springs-South Coast Field Office, Bureau of Land Management, U.S. Department of the Interior, 1201 Bird Center Drive, Palm Springs, California 92262, within 30 days from receipt of this decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, pursuant to Title 43 of the Code of Federal Regulations, Part 4, Subpart E, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulations, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

(1) the relative harm to the parties if the stay is granted or denied,
(2) the likelihood of the appellant's success on the merits,
(3) the likelihood of immediate and irreparable harm if the stay is not granted, and
(4) whether the public interest favors granting the stay.

Form 2920-1
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
LAND USE APPLICATION AND PERMIT
(Sec. 302(b) of P.L. 94-579, October 21, 1976, 43 U.S.C. 1732)

FORM APPROVED
OMB NO. 1004-0009
Expires: December 31, 2007

FOR BUREAU OF LAND MANAGEMENT (BLM) USE ONLY

Application Number
CACA-50437

1. Name *(first, middle initial, and last)*	Address *(include zip code)*	Phone *(include area code)*
Boulevard Associates, LLC	ATTN: Sunanda Behara 700 Universe Blvd, Juno Beach, FL 33408	561-304-5109

2. Attach map or sketch showing public lands for which you are applying

3. Proposed date(s) of use: from 10/30/2008 to 10/30/2011

4. Give legal basis for holding interest in lands in the State of CA
(Check appropriate box at right and explain.)
Please refer to case numbe CACA-48880 (Ford Dry Lake)

- [ ] Resident
- [x] Corporation
- [ ] Local Government
- [ ] Other
- [ ] Partnership
- [ ] County
- [ ] State Government

5. Are the lands now improved, occupied or used? [ ] Yes [x] No *(If "yes," describe improvements and purposes, identify users and occupants.)*
See attached information from application for Temporary Use Permit.

6. Do you need access to the land? [x] Yes [ ] No *(Describe needed or existing access)*
See attached information from application for Temporary Use Permit.

7a. What do you propose to use the lands for?
Solar meter and groundwater test well installation and monitoring. See attached application for additional information.

b. What improvements and/or land development do you propose? *(To complete application processing, engineering and construction drawings may be required)*
Temporary installation of solar meters and groundwater well(s). See attached information from application for Temporary Use Permit.

c. What is the estimated capital cost?	d. What is the source of water for the proposed use?
$ $400,000 - $600,000	See attached information from application for Temporary Use Permit

I CERTIFY That the information given by me in this application is true, complete, and correct to the best of my knowledge and belief and is given in good faith.

Sunanda Behara — (Signature of Applicant)
October 29, 2008 — (Date)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

PERMIT

Permission is hereby granted to Boulevard Assoc. / Genesis Project of 700 Universe Blvd. Juno Beach, FL 33408 to use the following described lands:

Permit Number CACA-50437

TOWNSHIP	RANGE	SECTION	SUBDIVISION
T 6S,	R18 E.	Sec 10	¼SESE well& meter #4
		4	SESE meter#1

Meridian	State	County	Acres (number)
SBBM	California	Riverside	2

for the purpose of Solar meter testing and groundwater test drilling

and subject to the following conditions:

1. This permit is issued for the period specified below. It is revocable at the discretion of the BLM, at any time upon notice. This permit is subject to valid adverse claims heretofore or hereafter acquired.
2. This permit is subject to all applicable provisions of the regulations (43 CFR 2920) which are made a part hereof.
3. This permit may not be assigned without prior approval of the BLM.
4. Permittee must not enclose roads or trails commonly in public use.
5. Authorized representatives of the Department of the Interior, other Federal agencies, and State and local law officials will at all times have the right to enter the premises on official business.
6. Permittee must pay the United States for any damage to its property resulting from the use.
7. Permittee must notify the BLM of address change immediately.
8. Permittee must observe all Federal, State, and local laws and regulations applicable to the premises and to erection or maintenance of signs or advertising displays including the regulations for the protection of game birds and game animals, and must keep the premises in a neat, orderly, and sanitary condition.
9. Permittee must pay the BLM, in advance, the lump sum of $ 9,000.00 for the period of use authorized by this permit or $ 3,000.00 annually, as rental or such other sum as may be required if a rental adjustment is made.
10. Use or occupancy of land under this permit will commence within months from date hereof and must be exercised at least days each year.
11. Permittee must take all reasonable precautions to prevent and suppress forest, brush, and grass fires and prevent pollution of waters on or in the vicinity of the lands.
12. Permittee must not cut any timber on the lands or remove other resources from the land without prior written permission from the BLM. Such permission may be conditioned by a requirement to pay fair market value for the timber or other resources.
13. Permittee agrees to have the serial number of this permit marked or painted on each advertising display or other facility erected or maintained under the authority of such permit.
14. This permit is subject to the provisions of Executive Order No. 11246 of September 24, 1965, as amended, which sets forth the Equal Opportunity clauses. A copy of this order may be obtained from the BLM.
15. Permittee acknowledges, by signing below, that he/she knows, understands and accepts the terms and conditions under which this permit is issued.
16. Special conditions *(attach additional sheets, if necessary)*

Permit issued for period

From 11-1-08

To 11-1-11

Fernanda Bedara (Permittee)

Shelly L. Roberts (BLM)

Assoc. Field Manager (Title) 11/6/08 (Date)

INSTRUCTIONS

1. Submit, in *duplicate*, to any local office of the Bureau of Land Management having jurisdiction of the lands.
2. Applications for Land Use Permits will not be accepted unless a notification of the availability of the land for non-BLM use *(Notice of Realty Action)* has been published in the Federal Register and for 3 weeks thereafter in a newspaper of general circulation. This provision does not apply in those situations where the publication of a *(Notice of Realty Action)* has been waived by the BLM.
3. If the annual rental exceeds $250 dollars per year; costs of processing the application must be paid by the applicant in advance.
4. The BLM may require additional information to process an application. Processing will be deferred until the required information is furnished by the applicant.

(Continued on page 3)

Scott, Michele (Sacramento)

From: Mark Abbott [MABBOTT@co.riverside.ca.us]
Sent: Thursday, April 30, 2009 9:36 AM
To: Scott, Michele (Sacramento)
Subject: RE: Genesis Well Drilling Program - WDR Permit

Hi Michelle,

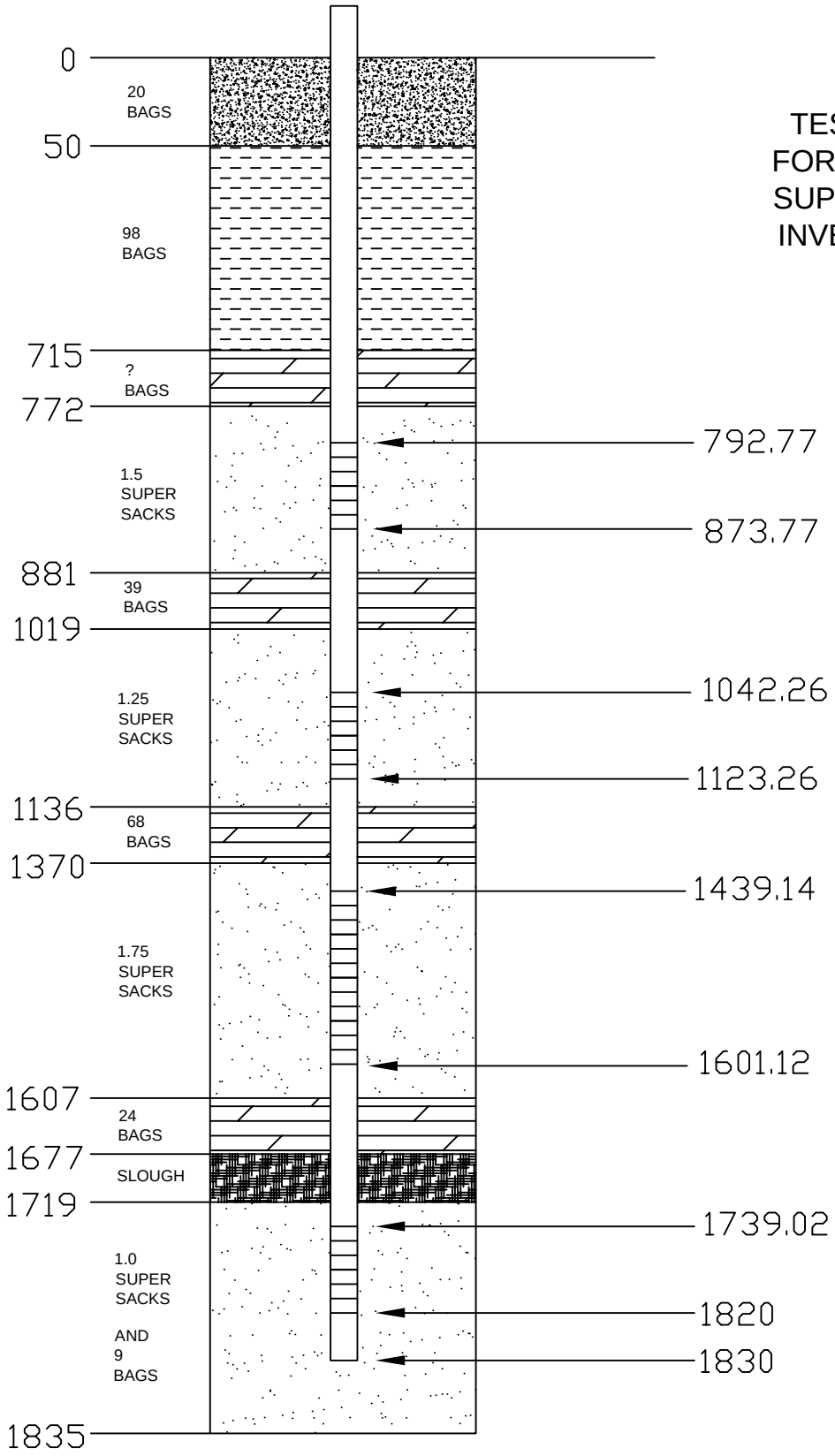
Riverside County Environmental Health does not review CEQA documents in association with well drilling permits. Well drilling permits are ministerial as long as the drilling is not in an adjudicated basin.

CEQA may be required but Environmental Health does not require CEQA review in association with a well drilling permit.

I hope this helps.

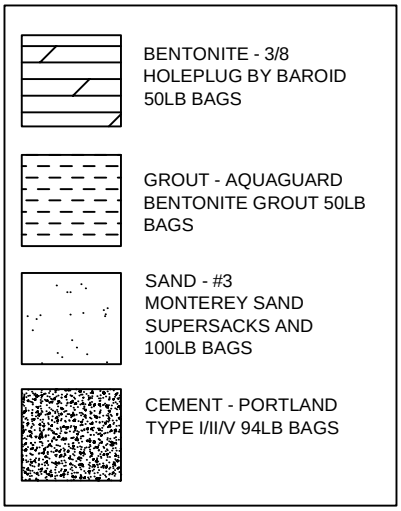
Mark Abbott, REHS IV
Department of Environmental Health
Environmental Resources Management
38686 El Cerrito Rd.
Palm Desert, CA. 92211
Phone (760) 393-3390
Fax (760) 863-7013

ATTACHMENT 2: BORING LOG AND WELL COMPLETION DETAILS



TEST WELL #2
FORD DRY LAKE
SUPPLEMENTAL
INVESTIGATION

NOT TO SCALE

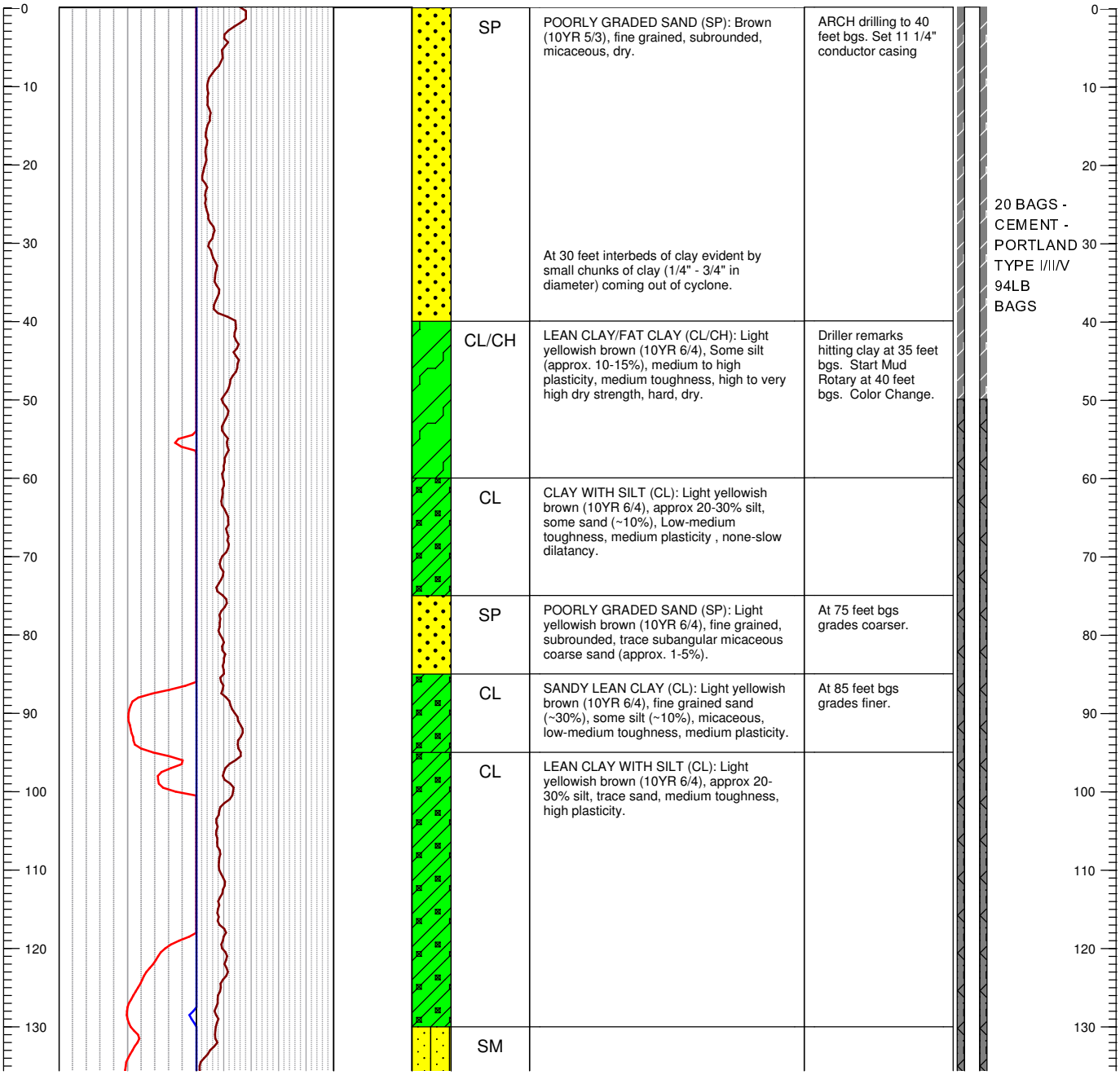


Draft Lithologic Log and Well Completion Details for TW-2

Genesis Solar, LLC
Project Number: 52004617

Date Drilled: 11/17/2009 to 12/09/2009	Northing 2169119.765 Easting 6970187.073	
Drilling Method: Mud Rotary, 10" Diameter Tricone	Ground Surface Elevation: 390.12 feet amsl	
Drilling Contractor: WDC Exploration	Total Depth: 1841 ft	Well Depth: 1830 ft
Geologist: Nat Beal, Ed Baqurizo, Ryan Farrell	Reviewer: Mike Tietze	

Notes: The cuttings log was adjusted based on the interpretation of the geophysical logs.



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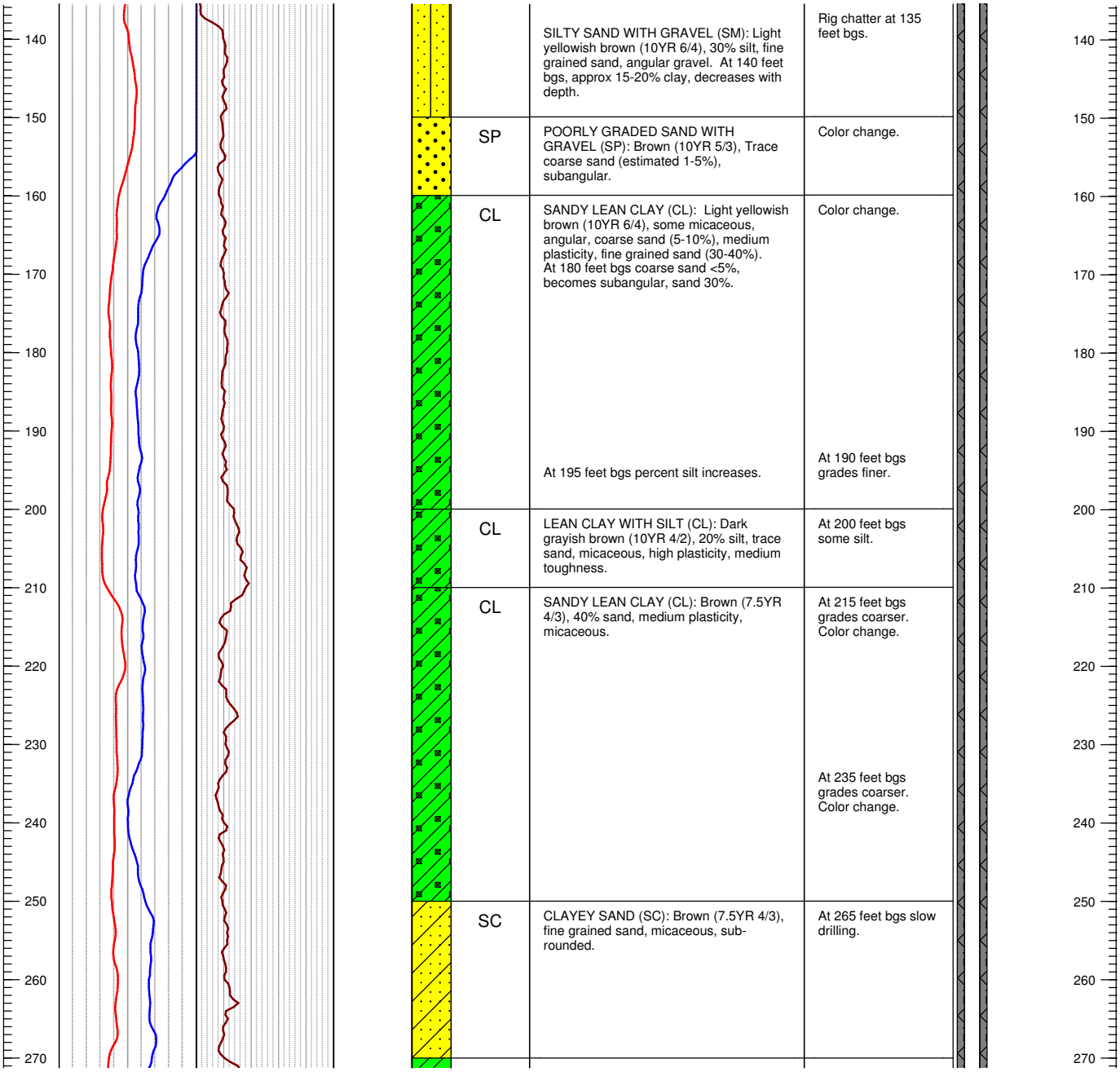

USCS Soil Type	Geologic Description	Remarks
	SILTY SAND WITH GRAVEL (SM): Light yellowish brown (10YR 6/4), 30% silt, fine grained sand, angular gravel. At 140 feet bgs, approx 15-20% clay, decreases with depth.	Rig chatter at 135 feet bgs.
SP	POORLY GRADED SAND WITH GRAVEL (SP): Brown (10YR 5/3), Trace coarse sand (estimated 1-5%), subangular.	Color change.
CL	SANDY LEAN CLAY (CL): Light yellowish brown (10YR 6/4), some micaceous, angular, coarse sand (5-10%), medium plasticity, fine grained sand (30-40%). At 180 feet bgs coarse sand <5%, becomes subangular, sand 30%.	Color change.
	At 195 feet bgs percent silt increases.	At 190 feet bgs grades finer.
CL	LEAN CLAY WITH SILT (CL): Dark grayish brown (10YR 4/2), 20% silt, trace sand, micaceous, high plasticity, medium toughness.	At 200 feet bgs some silt.
CL	SANDY LEAN CLAY (CL): Brown (7.5YR 4/3), 40% sand, medium plasticity, micaceous.	At 215 feet bgs grades coarser. Color change.
		At 235 feet bgs grades coarser. Color change.
SC	CLAYEY SAND (SC): Brown (7.5YR 4/3), fine grained sand, micaceous, sub-rounded.	At 265 feet bgs slow drilling.

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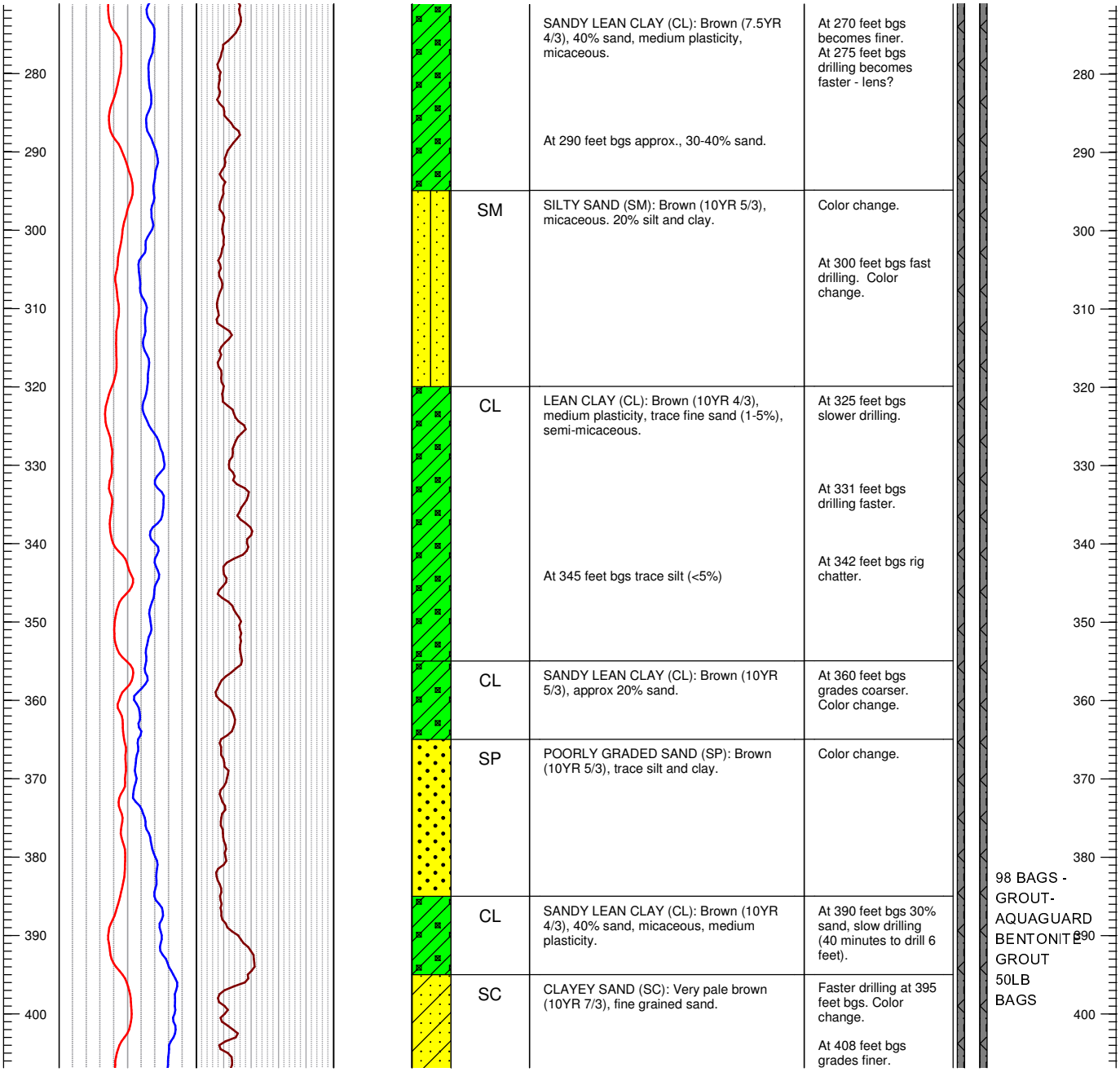

USCS Soil Type	Geologic Description	Remarks
	SANDY LEAN CLAY (CL): Brown (7.5YR 4/3), 40% sand, medium plasticity, micaceous. At 290 feet bgs approx., 30-40% sand.	At 270 feet bgs becomes finer. At 275 feet bgs drilling becomes faster - lens?
SM	SILTY SAND (SM): Brown (10YR 5/3), micaceous. 20% silt and clay.	Color change. At 300 feet bgs fast drilling. Color change.
CL	LEAN CLAY (CL): Brown (10YR 4/3), medium plasticity, trace fine sand (1-5%), semi-micaceous. At 345 feet bgs trace silt (<5%)	At 325 feet bgs slower drilling. At 331 feet bgs drilling faster. At 342 feet bgs rig chatter.
CL	SANDY LEAN CLAY (CL): Brown (10YR 5/3), approx 20% sand.	At 360 feet bgs grades coarser. Color change.
SP	POORLY GRADED SAND (SP): Brown (10YR 5/3), trace silt and clay.	Color change.
CL	SANDY LEAN CLAY (CL): Brown (10YR 4/3), 40% sand, micaceous, medium plasticity.	At 390 feet bgs 30% sand, slow drilling (40 minutes to drill 6 feet).
SC	CLAYEY SAND (SC): Very pale brown (10YR 7/3), fine grained sand.	Faster drilling at 395 feet bgs. Color change. At 408 feet bgs grades finer.

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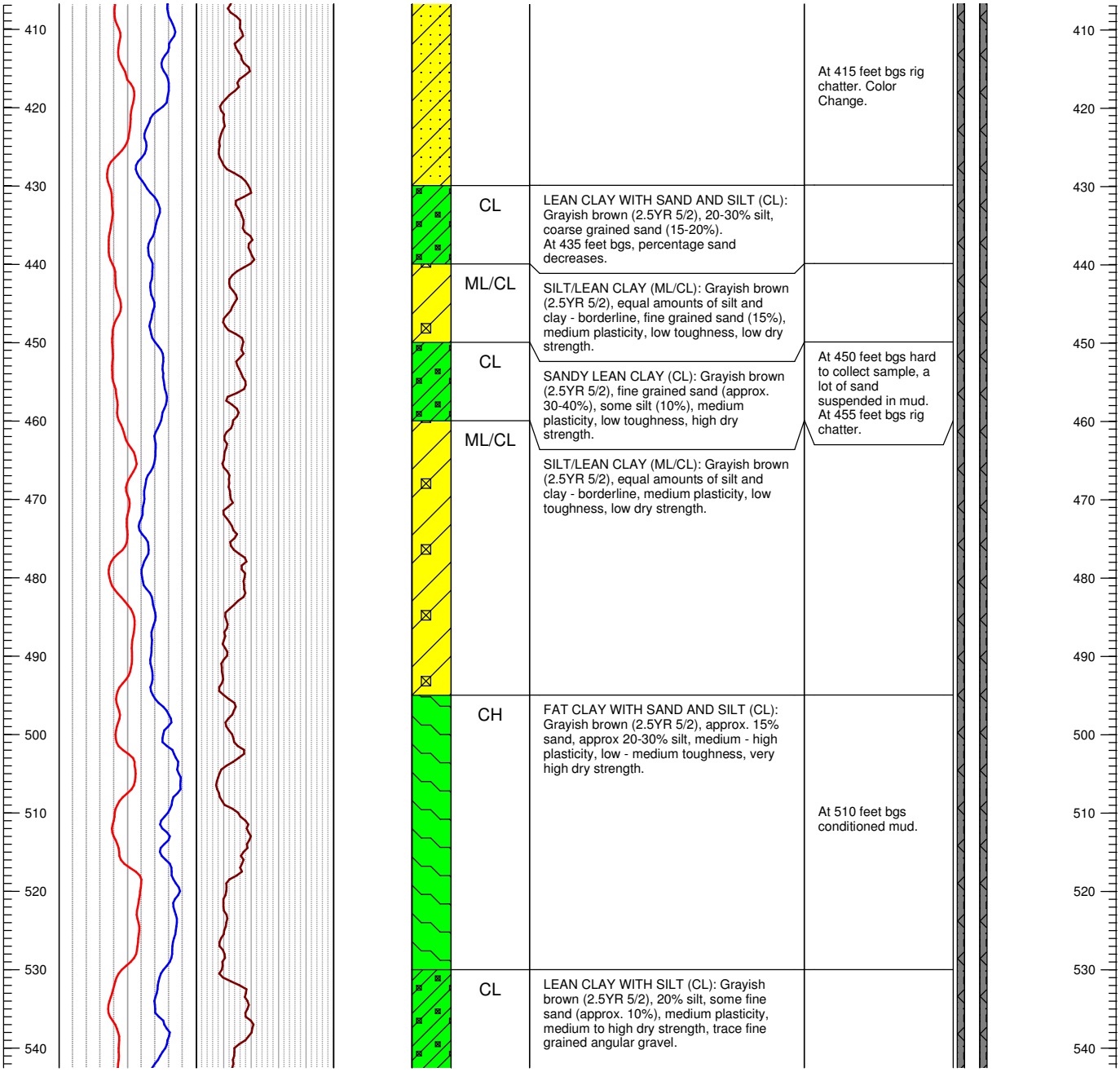

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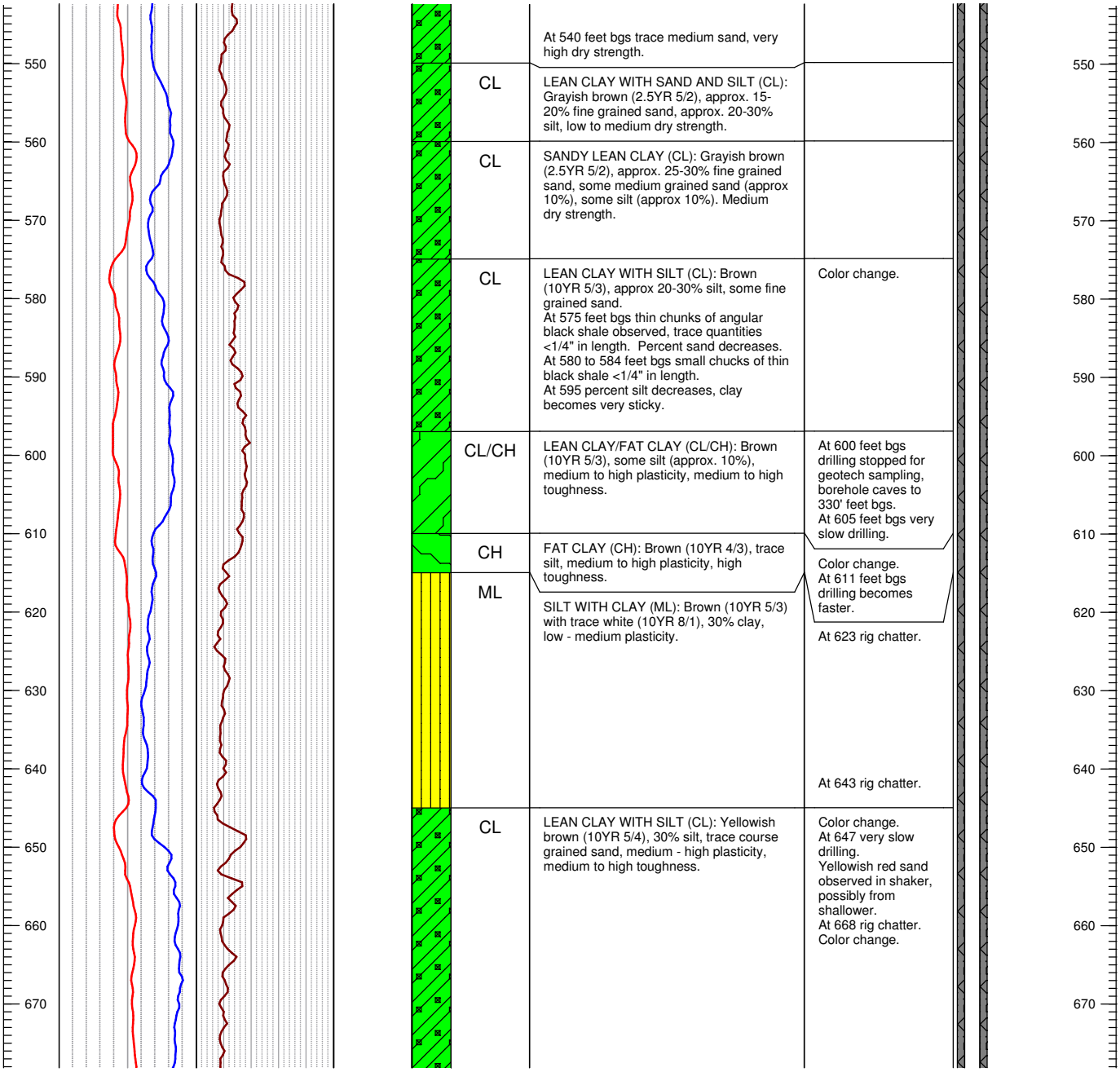

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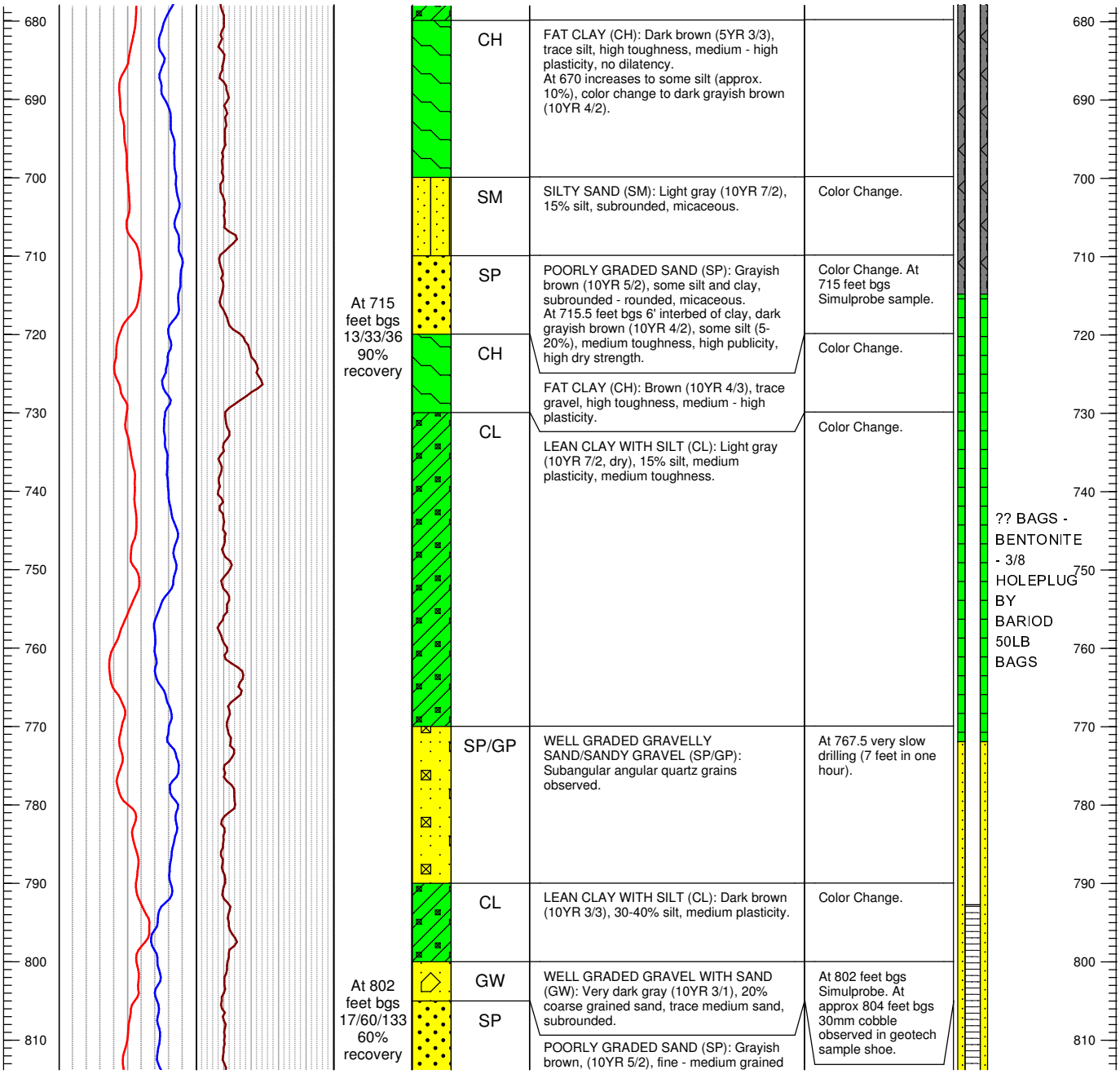

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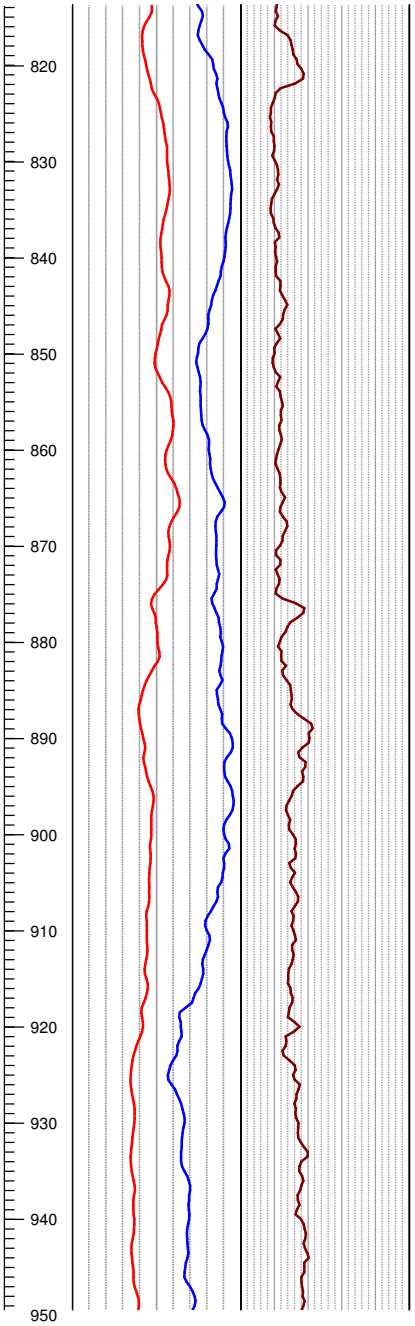

Blows / 6"	Graphic Log	USCS Soil Type	Geologic Description	Remarks	Well Schematic
			sand, rounded, some silt (approx. 10-15%).	Color Change.	
		GW/SW	WELL GRADED SANDY GRAVEL/GRAVELLY SAND (GW/SW): Fine gravel, fine - coarse sand, some clay.	Possibly interbedded sand and gravel.	1.5 SUPER SACKS - SAND - #3 MONTEREY SAND
		GP	POORLY GRADED GRAVEL WITH SAND (GP): Grayish brown (10YR 5/2), angular to very angular, likely chips of coarse gravel up to 5 mm in diameter.	At 885 feet bgs rig chatter.	
		CL	LEAN CLAY (CL)	Based on geophysics.	
		GP	POORLY GRADED GRAVEL WITH SAND (GP): Grayish brown (10YR 5/2), angular to very angular, likely chips of coarse gravel up to 5 mm in diameter.	At 905-925 feet bgs slow drilling.	
		SW/GW	WELL GRADED SAND/WELL GRADED GRAVEL (SW/GW): Grayish brown (10YR 5/2), angular, could be chips of coarse grained gravel, coarse sand and some fine grained sand, trace silt.	At 925 feet bgs very slow drilling advanced 20 feet in 4 hours.	
		ML	SILT WITH CLAY: Gray (10YR 6/1), low plasticity, low toughness. Driller noted it could be a siltstone.	Color change. Hard drilling.	39 BAGS -

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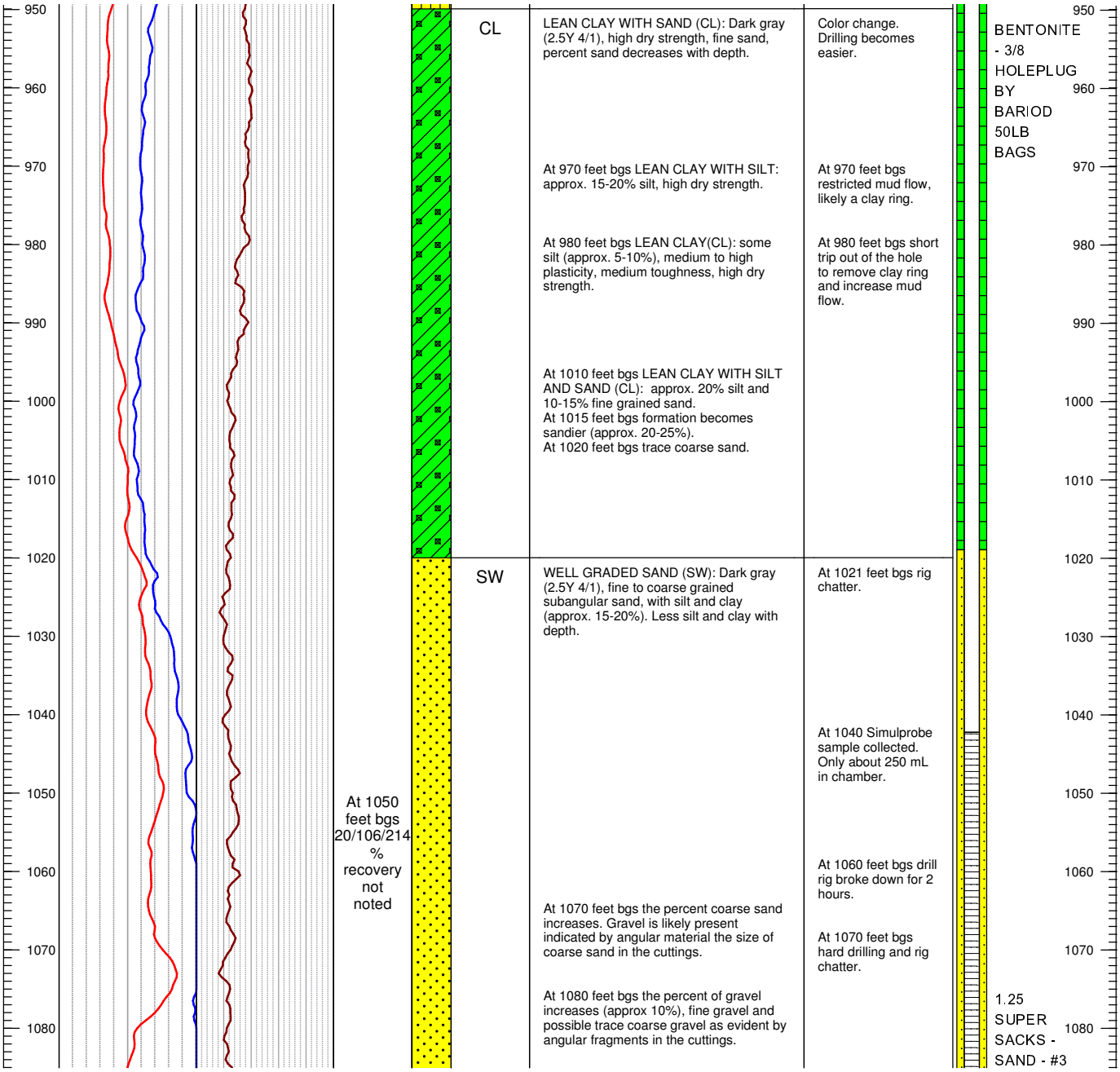

USCS Soil Type	Geologic Description	Remarks
CL	LEAN CLAY WITH SAND (CL): Dark gray (2.5Y 4/1), high dry strength, fine sand, percent sand decreases with depth.	Color change. Drilling becomes easier.
	At 970 feet bgs LEAN CLAY WITH SILT: approx. 15-20% silt, high dry strength.	At 970 feet bgs restricted mud flow, likely a clay ring.
	At 980 feet bgs LEAN CLAY(CL): some silt (approx. 5-10%), medium to high plasticity, medium toughness, high dry strength.	At 980 feet bgs short trip out of the hole to remove clay ring and increase mud flow.
	At 1010 feet bgs LEAN CLAY WITH SILT AND SAND (CL): approx. 20% silt and 10-15% fine grained sand. At 1015 feet bgs formation becomes sandier (approx. 20-25%). At 1020 feet bgs trace coarse sand.	
SW	WELL GRADED SAND (SW): Dark gray (2.5Y 4/1), fine to coarse grained subangular sand, with silt and clay (approx. 15-20%). Less silt and clay with depth.	At 1021 feet bgs rig chatter.
		At 1040 Simulprobe sample collected. Only about 250 mL in chamber.
		At 1060 feet bgs drill rig broke down for 2 hours.
	At 1070 feet bgs the percent coarse sand increases. Gravel is likely present indicated by angular material the size of coarse sand in the cuttings.	At 1070 feet bgs hard drilling and rig chatter.
	At 1080 feet bgs the percent of gravel increases (approx 10%), fine gravel and possible trace coarse gravel as evident by angular fragments in the cuttings.	

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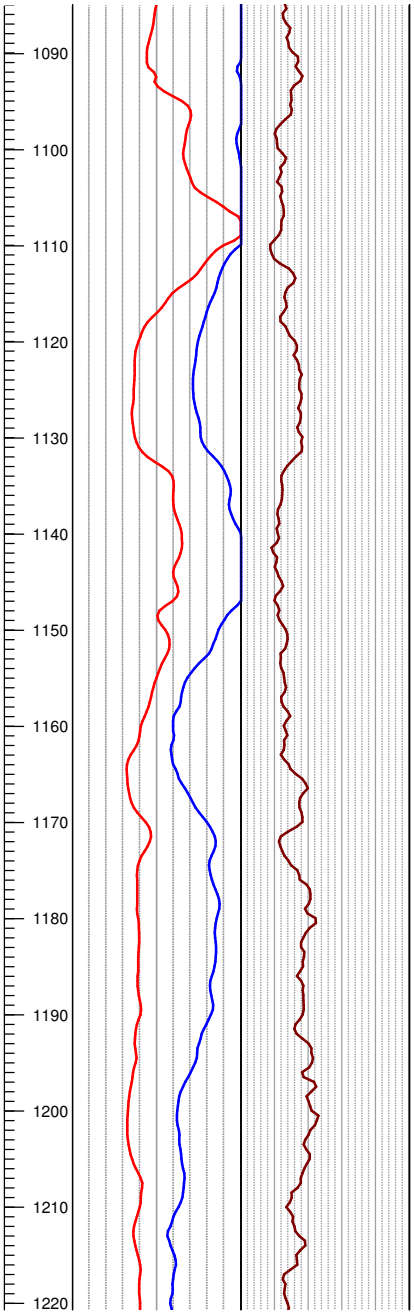

Blows / 6"	Graphic Log	USCS Soil Type	Geologic Description	Remarks	Well Schematic
		GC	CLAYEY GRAVEL (GC): Dark gray (2.5Y 4/1), fine grained gravel, subrounded to subangular, trace fine sand.		MONTEREY SAND
		SW	WELL GRADED SAND (SW): Dark gray (2.5Y 4/1), fine to coarse grained sand, some fine gravel (approx. 10%), some silt and clay (approx. 5 to 10%). At 1120 feet bgs the percentage of silt and clay increase (approx. 10-15%).	At 1105 feet bgs very slow drilling. Drilling becomes easier at 1110 feet bgs.	
		CL	LEAN CLAY WITH SAND (CL): Dark gray (2.5Y 4/1) medium to high plasticity, fine grained sand.	At 1120 feet bgs very slow drilling.	
		SW	WELL GRADED SAND (SW): Dark gray (2.5Y 4/1), medium to coarse grained sand, some fine grained gravel.	Drilling becomes easier at 1130 feet bgs.	
		ML	SILT WITH CLAY (ML): Dark gray (2.5Y 4/1), low plasticity, some fine gravel. At 1160 percentage of gravel increases. At 1170 gravel is angular.	At 1160 feet bgs rig chatter.	
		CL	CLAY WITH SILT (CL): Dark gray (5Y 4/1), medium plasticity, medium toughness, high dry strength, approx. 20-30% silt. Possibly claystone or siltstone.	Color Change. At 1180 very hard drilling. 1 hour delay to fix shaker.	
			At 1210 feet bgs CLAY WITH SILT AND SAND (CL): approx. 20-30% silt, approximately 15-20% fine sand, trace angular fine gravel.	At 1205 feet bgs drilling becomes easier.	

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Depth - Feet	GEOPHYSICAL LOGS		Blows / 6"	Graphic Log	USCS Soil Type	Geologic Description	Remarks	Well Schematic
	RLN (OHM-M) 0 – 20; RSN (OHM-M) 0 – 20	Natural Gamma 20 – 220 (GAPI)						
1220								
1230								
1240								
1250					SC	CLAYEY SAND (SC): Dark gray (5Y 4/1), fine grained sand, thin gravel lens present at approx. 1254 feet bgs.		68 BAGS - BENTONITE - 3/8 HOLEPLUG BY BARIOD 50LB BAGS
1260			At 1265 feet bgs 12/350 (for 5")		SP	POORLY GRADED SAND WITH SILT (SP): Dark gray (5Y 4/1), fine grained sand, weakly cemented, with approx. 10% silt. Possibly sandstone.	At 1265 feet bgs simulprobe sample attempted. No sample collection.	
1270					CL	LEAN CLAY (CL): Dark gray (2.5Y 4/1), dense, high plasticity.		
1280								
1290								
1300								
1310								
1320								
1330								
1340								
1350								

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Depth - Feet	GEOPHYSICAL LOGS: RLN (OHM-M) 0–20; RSN (OHM-M) 0–20	Natural Gamma 20 (GAPI) 220	Blows / 6"	Graphic Log	USCS Soil Type	Geologic Description	Remarks	Well Schematic
1360					CL	LEAN CLAY WITH SILT (CL): Gray (5Y 4/1), approx. 15-20% silt, high dry strength, medium toughness, medium plasticity, some sand (approx. 10%). At 1360 feet bgs possibly thin interbeds of claystone, dry, hard, thin, laminated fragments in cuttings. At 1370 feet bgs percent sand increases. Could be thin interbeds of sand in formation.	At 1360 feet bgs hard drilling.	
1370								
1380			At 1380 feet bgs12/250/100 (for 2.5) refusal 1381.2 feet bgs		SM/SC	SILTY SAND/CLAYEY SAND (SM/SC): Gray (5Y 4/1), fine sand.	At 1380 feet bgs simulprobe sample attempted. No water sample.	
1390								
1400					CL	LEAN CLAY WITH SAND (CL): Dark gray (5Y 4/1), fine sand, medium plasticity.	Color Change.	
1410								
1420								
1430								
1440								
1450						At 1450 feet bgs some fine gravel.		
1460								
1470								
1480					SC	CLAYEY SAND (SC): Dark gray (5Y 4/1), fine grained sand, some fine gravel.		
1490								1.75 SUPER

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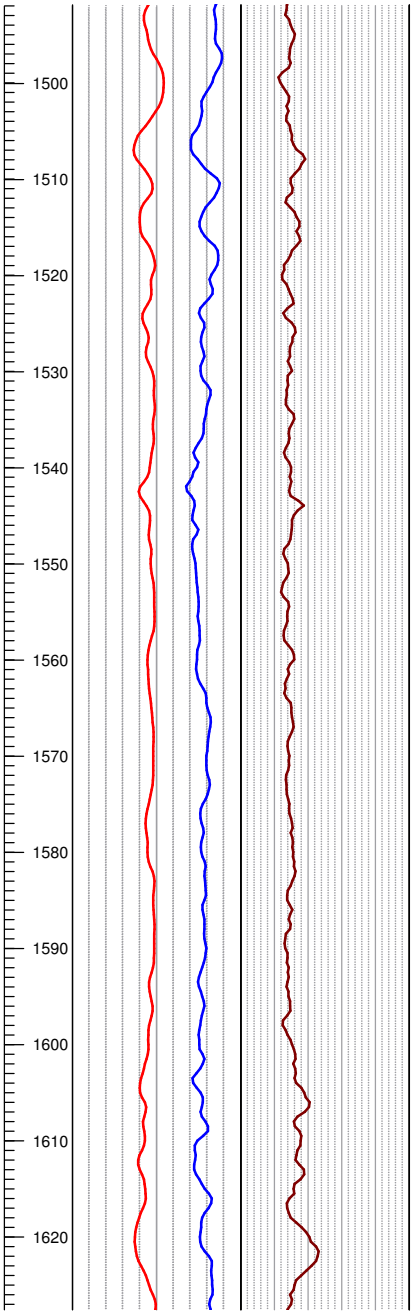
Depth - Feet

GEOPHYSICAL LOGS: RLN (OHM-M) 0–20; RSN (OHM-M) 0–20; Natural Gamma (GAPI) 20–220



Blows / 6"	Graphic Log	USCS Soil Type	Geologic Description	Remarks	Well Schematic
					SACKS - SAND - #3 MONTEREY SAND
		CL	LEAN CLAY WITH SAND (CL): Dark Gray (2.5Y 4/1), fine sand (approx. 10-15%).	Color Change. Driller notes interbeded hard and moderate drilling.	
		CL	SANDY LEAN CLAY (CL): Dark Gray (2.5Y 4/1), medium plasticity, medium toughness, high dry strength, fine sand (approx. 30-40%), some silt (approx. 10-15%). Below 1530 dry strength medium.	Easy and quick drilling	
		SC	CLAYEY SAND (SC): Dark Gray (2.5Y 4/1), fine sand, 30-40% clay, some silt (approx. 5-10%). At 1595 feet bgs the percentage of sand increases. At 1597 feet bgs sand is weakly cemented possibly sandstone.		
		CL	LEAN CLAY WITH SILT (CL): Dark Gray (2.5Y 4/1), medium toughness, medium to high plasticity, approx. 15-20% silt, some fine sand, trace coarse sand.	At 1597 feet bgs rig chatter.	
		CL			

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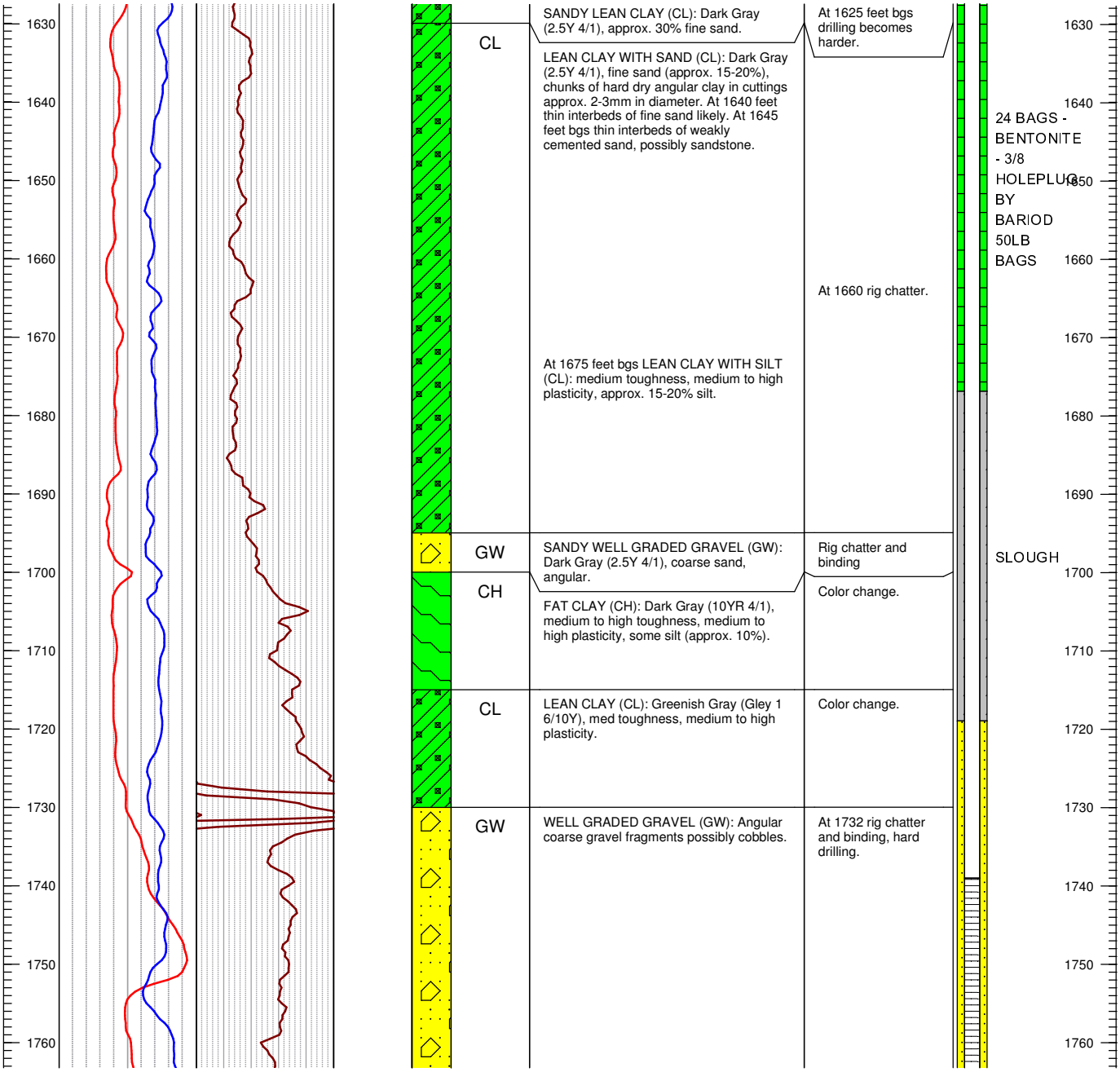

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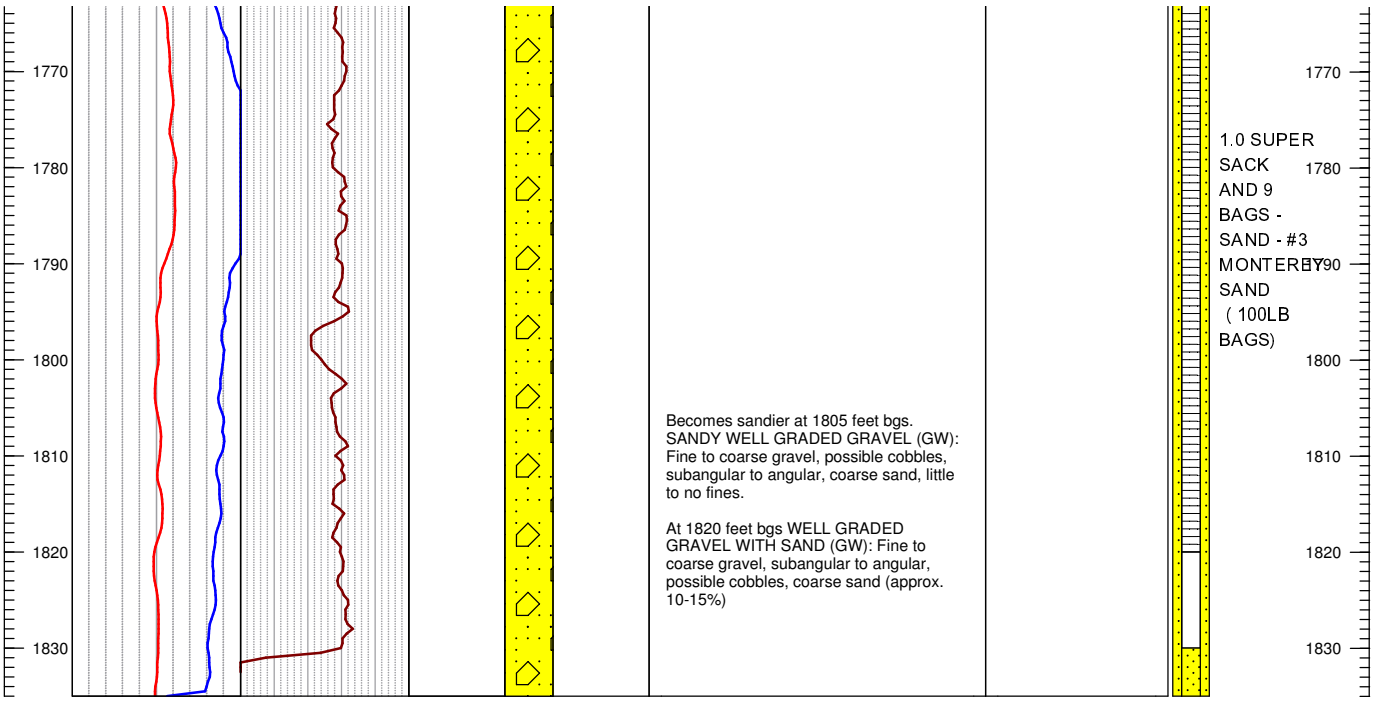
Depth - Feet	GEOPHYSICAL LOGS		Blows / 6"	Graphic Log	USCS Soil Type	Geologic Description	Remarks	Well Schematic
	RLN (OHM-M) 0 – 20; RSN (OHM-M) 0 – 20	Natural Gamma 20 – 220 (GAPI)						



Becomes sandier at 1805 feet bgs.
SANDY WELL GRADED GRAVEL (GW): Fine to coarse gravel, possible cobbles, subangular to angular, coarse sand, little to no fines.

At 1820 feet bgs WELL GRADED GRAVEL WITH SAND (GW): Fine to coarse gravel, subangular to angular, possible cobbles, coarse sand (approx. 10-15%)

ATTACHMENT 3: GEOPHYSICAL LOGS

PACIFIC SURVEYS

DUAL INDUCTION GAMMA-RAY

Job No. 15004

Company WDC EXPLORATION & WELLS
Well TW-2
Field FORD DRY LAKE
County RIVERSIDE State CA

Location:

1/4 Mile N of 10 Fwy @ Wileys Well Road
GPS: N33o 36.748' W114o 54.485'

Sec. Twp. Rge.

Other Services:

LL3/GR
SNC/VDL
ELOG/DEV
CAL

Permanent Datum	G.L.	Elevation above perm. datum	Elevation
Log Measured From	G.L. 0'		K.B.
Drilling Measured From	G.L.		D.F.
			G.L.

Date	12-04-09		
Run Number	ONE		
Depth Driller	1835'		
Depth Logger	1840'		
Bottom Logged Interval	1538'		
Top Log Interval	30'		
Casing Driller	11" @ 40'		
Casing Logger	40'		
Bit Size	10.625" @ 1240'	10" @ 1835'	
Type Fluid in Hole	BENTONITE		
Density / Viscosity	NA		
pH / Fluid Loss	NA		
Source of Sample	PIT		
Rm @ Meas. Temp	4.90 @ 77F		
Rmf @ Meas. Temp	3.90 @ 77F		
Rmc @ Meas. Temp	NA		
Source of Rmf / Rmc	MEAS		
Rm @ BHT	NA		
Time Circulation Stopped	4 HOURS		
Time Logger on Bottom	0520 pm		
Max. Recorded Temperature	NA		
Equipment Number	PS-1		
Location	LA		
Recorded By	Ozman Trad		
Witnessed By	Nat Beal		

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Comments

Dual Induction Calibration Report

Serial-Model: 0001-ALT
Surface Cal Performed: Wed Jul 16 12:29:06 2008

Readings References Results

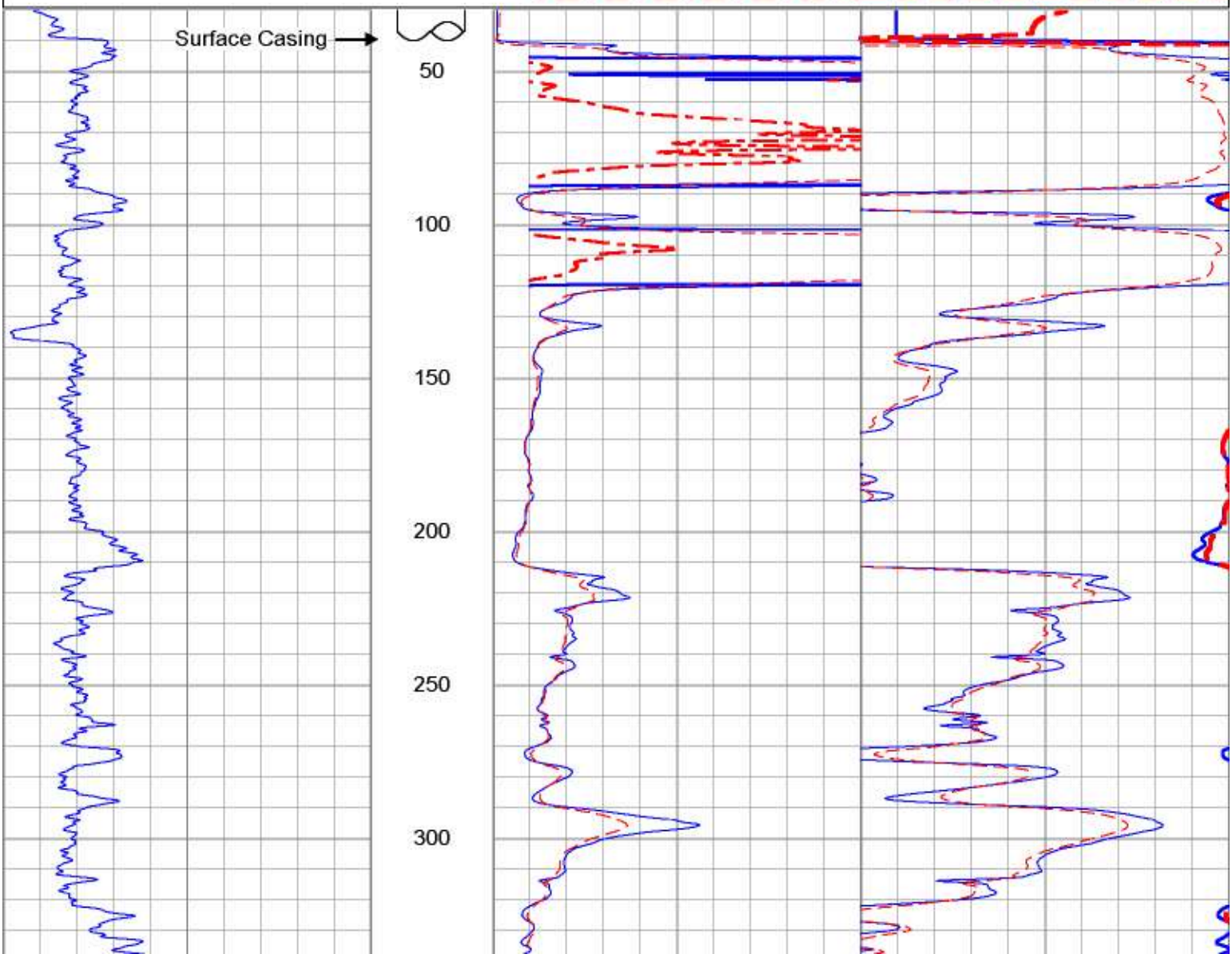
Loop:	Air	Loop		Air	Loop		m	b
Deep	1417.370	3879.020	cps	0.000	612.000	mmho-m	0.249	-352.377
Medium	1932.610	14228.100	cps	0.000	1960.000	mmho-m	0.159	-308.072

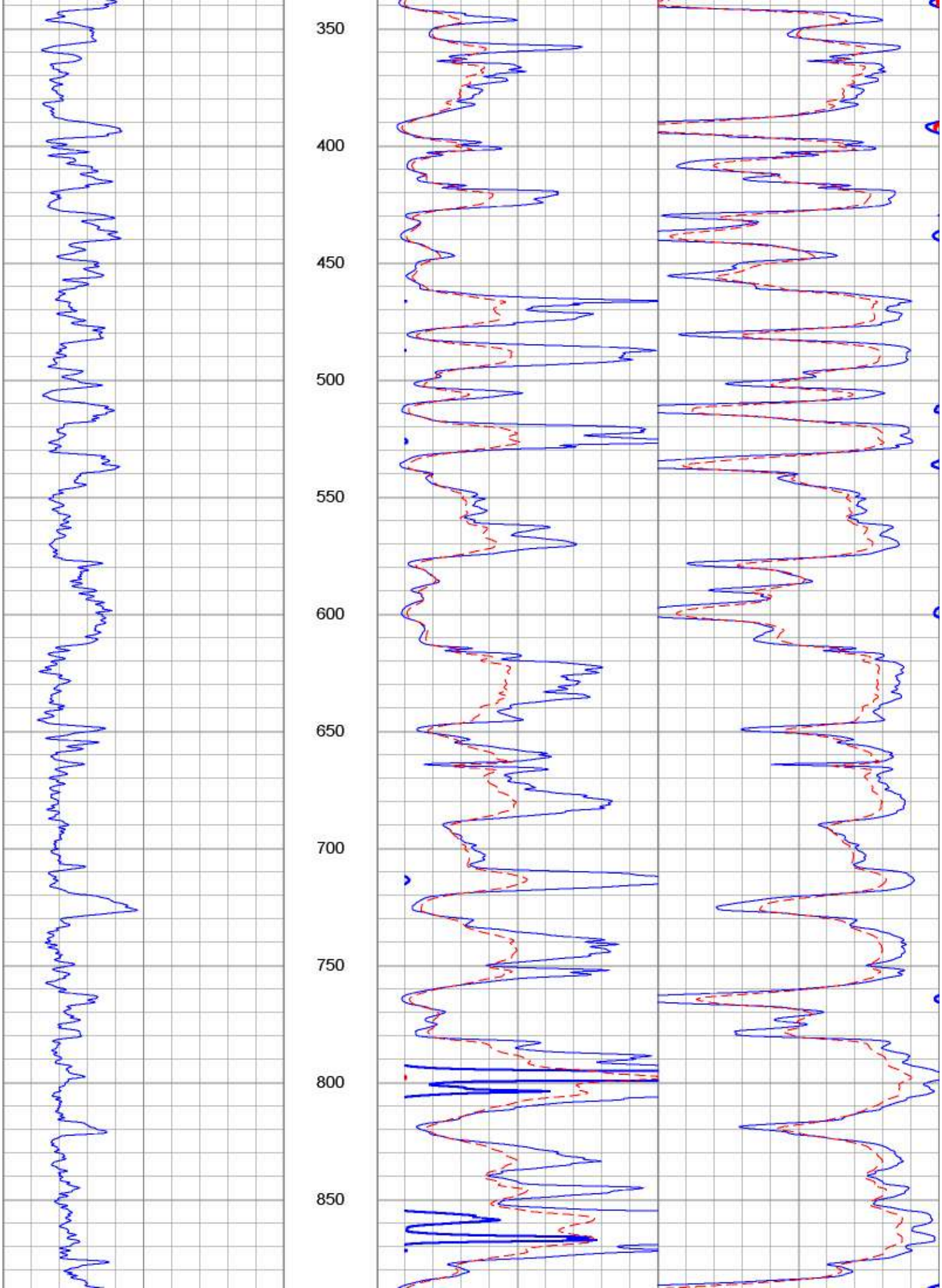
Gamma Ray Calibration Report

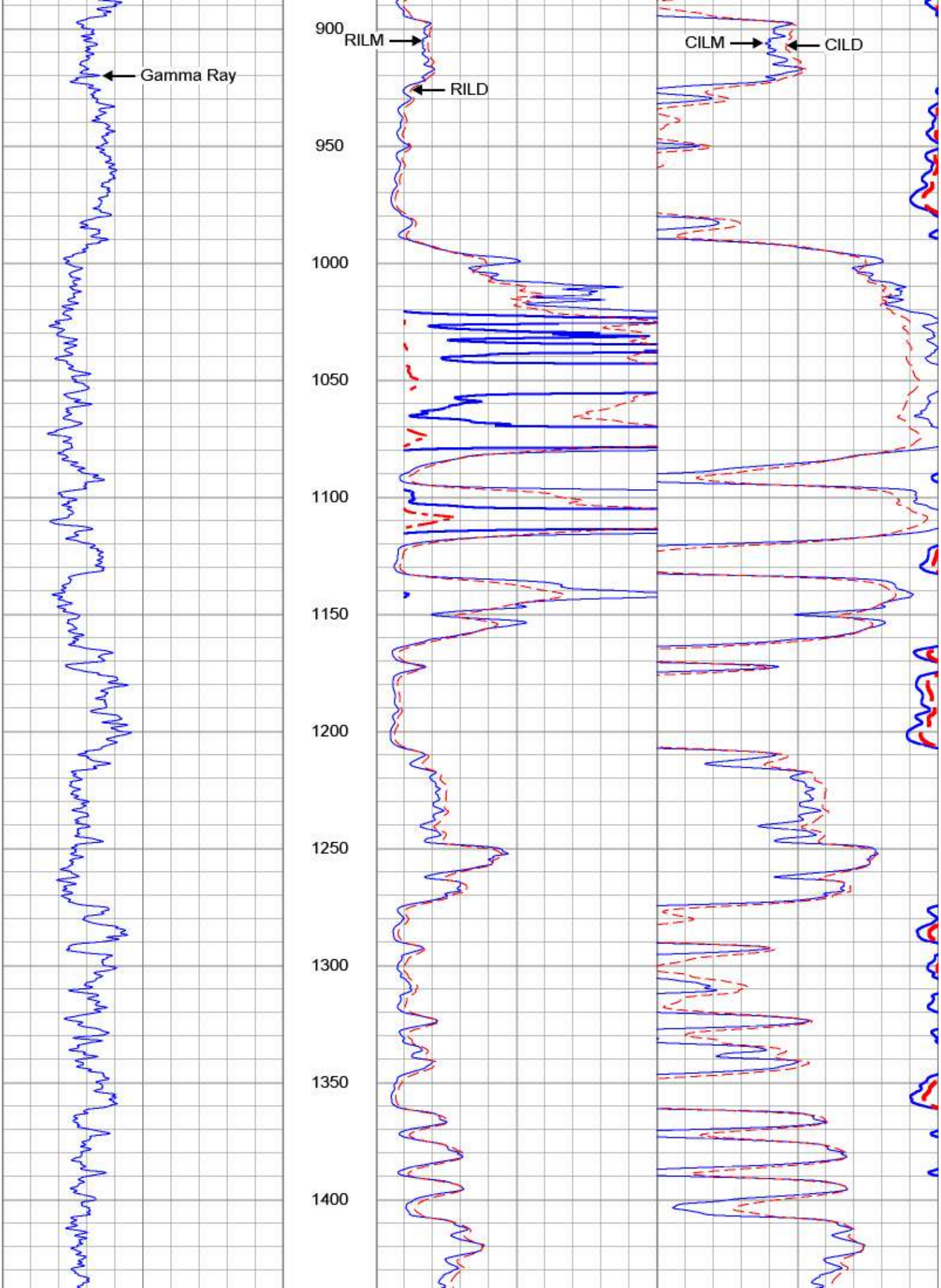
Serial Number:	PS_1	
Tool Model:	01	
Performed:	Wed Jul 16 12:42:11 2008	
Calibrator Value:	162	GAPI
Background Reading:	41.1721	cps
Calibrator Reading:	160.188	cps
Sensitivity:	1.36116	GAPI/cps

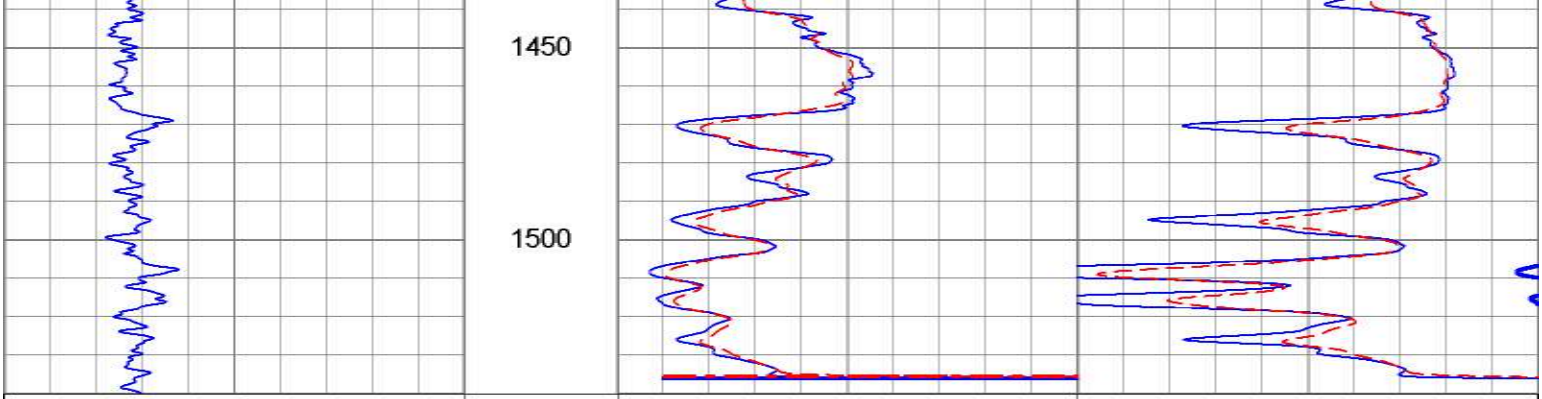
Database File:	15004.db
Dataset Pathname:	wdc/well/run1/dil2.1
Presentation Format:	DIL
Dataset Creation:	Fri Dec 04 23:55:52 2009 by Calc Warrior Version 6.6
Charted by:	Depth in Feet scaled 1:600

20	Gamma-Ray (GAPI)	220	0	RILM (Ohm-m)	25	400	CILM (mmho-m) 0
			0	RILD (Ohm-m)	25	400	CILD (mmho-m) 0
			25	RILM backup (Ohm-m)	250	4000	CILM backup (mmho-m) 400
			25	RILD backup (Ohm-m)	250	4000	CILD backup (mmho-m) 400




350
400
450
500
550
600
650
700
750
800
850


Gamma Ray
900
RILM
RILD
950
1000
1050
1100
1150
1200
1250
1300
1350
1400
CILM
CILD


1450
1500
20 Gamma-Ray (GAPI) 220
0 RILM (Ohm-m) 25
0 RILD (Ohm-m) 25
25 RILM backup (Ohm-m) 250
25 RILD backup (Ohm-m) 250
400 CILM (mmho-m) 0
400 CILD (mmho-m) 0
4000 CILM backup (mmho-m) 400
4000 CILD backup (mmho-m) 400

PACIFIC SURVEYS

ELECTRIC LOG
LATEROLOG 3
GAMMA-RAY

Job No. 15004

Company WDC EXPLORATION & WELLS
Well TW-2
Field FORD DRY LAKE
County RIVERSIDE State CA

Location:
1/4 Mile N of 10 Fwy @ Wileys Well Road
GPS: N33o 36.748' W114o 54.485'
Sec. Twp. Rge.

Other Services:
LL3/GR
SNC/VDL
DIL/DEV
CAL

				Elevation
Permanent Datum	G.L.		Elevation above perm. datum	K.B.
Log Measured From	G.L.	0'		D.F.
Drilling Measured From	G.L.			G.L.

Date	12-04-09	
Run Number	ONE	
Depth Driller	1835'	
Depth Logger	1840'	
Bottom Logged Interval	1840'	
Top Log Interval	30'	
Casing Driller	11" @ 40'	
Casing Logger	40'	
Bit Size	10.625" @ 1240'	10" @ 1835'
Type Fluid in Hole	BENTONITE	
Density / Viscosity	NA	
pH / Fluid Loss	NA	
Source of Sample	PIT	
Rm @ Meas. Temp	4.90 @ 77F	
Rmf @ Meas. Temp	3.90 @ 77F	
Rmc @ Meas. Temp	NA	
Source of Rmf / Rmc	MEAS	
Rm @ BHT	NA	
Time Circulation Stopped	4 HOURS	
Time Logger on Bottom	0520 pm	
Max. Recorded Temperature	NA	
Equipment Number	PS-1	
Location	LA	
Recorded By	Ozman Trad	
Witnessed By	Nat Beal	

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Comments

ELOG Calibration Report

Serial: D1
Model: DTQ

Shop Calibration Performed: Wed Sep 30 18:06:23 2009
Before Survey Verification Performed: Mon Aug 06 11:54:10 2007
After Survey Verification Performed: Mon Aug 06 11:54:38 2007

Shop Calibration

	Readings Zero	Readings Cal		References Zero	References Cal		Results Gain	Results Offset
Short	11.208	103.455		10.200	102.200	Ohm-m	0.997	-0.978
Long	3.344	89.080		10.200	102.200	Ohm-m	1.073	-15.746
IEE	30.037	6022.654	counts	0.033	6.591	A		
VSN	98.194	6827.093	counts	1.873	130.218	V		
VLN	83.806	1710.224	counts	1.598	32.620	V		

Before Survey Verification

	Readings Zero	Readings Cal		References Zero	References Cal		Results Gain	Results Offset
Short	183.906	100.821		9.828	100.799	Ohm-m	-1.095	211.190
Long	422.542	101.924		101.776	101.776	Ohm-m	-0.317	134.130
IEE	59.028	6394.075	counts	0.065	6.998	A		
VSN	121.963	7242.794	counts	2.326	138.147	V		
VLN	70.056	1830.495	counts	1.336	34.914	V		

After Survey Verification

	Readings Zero	Readings Cal		References Zero	References Cal		Results Gain	Results Offset
Short	117.548	100.824		183.906	100.821	Ohm-m	4.968	-400.076
Long	271.705	101.931		101.924	101.924	Ohm-m	1.888	-90.571
IEE	92.849	6387.565	counts	0.102	6.991	A		
VSN	122.623	7235.648	counts	2.339	138.011	V		
VLN	70.858	1828.759	counts	1.352	34.881	V		

After Survey Verification compared to Before Survey Calibration

	Zero Before	Zero After		Cal Before	Cal After	
Short	9.828	183.906	Ohm-m	100.799	100.821	Ohm-m
Long	0.000	422.542	Ohm-m	101.776	101.924	Ohm-m

Gamma Ray Calibration Report

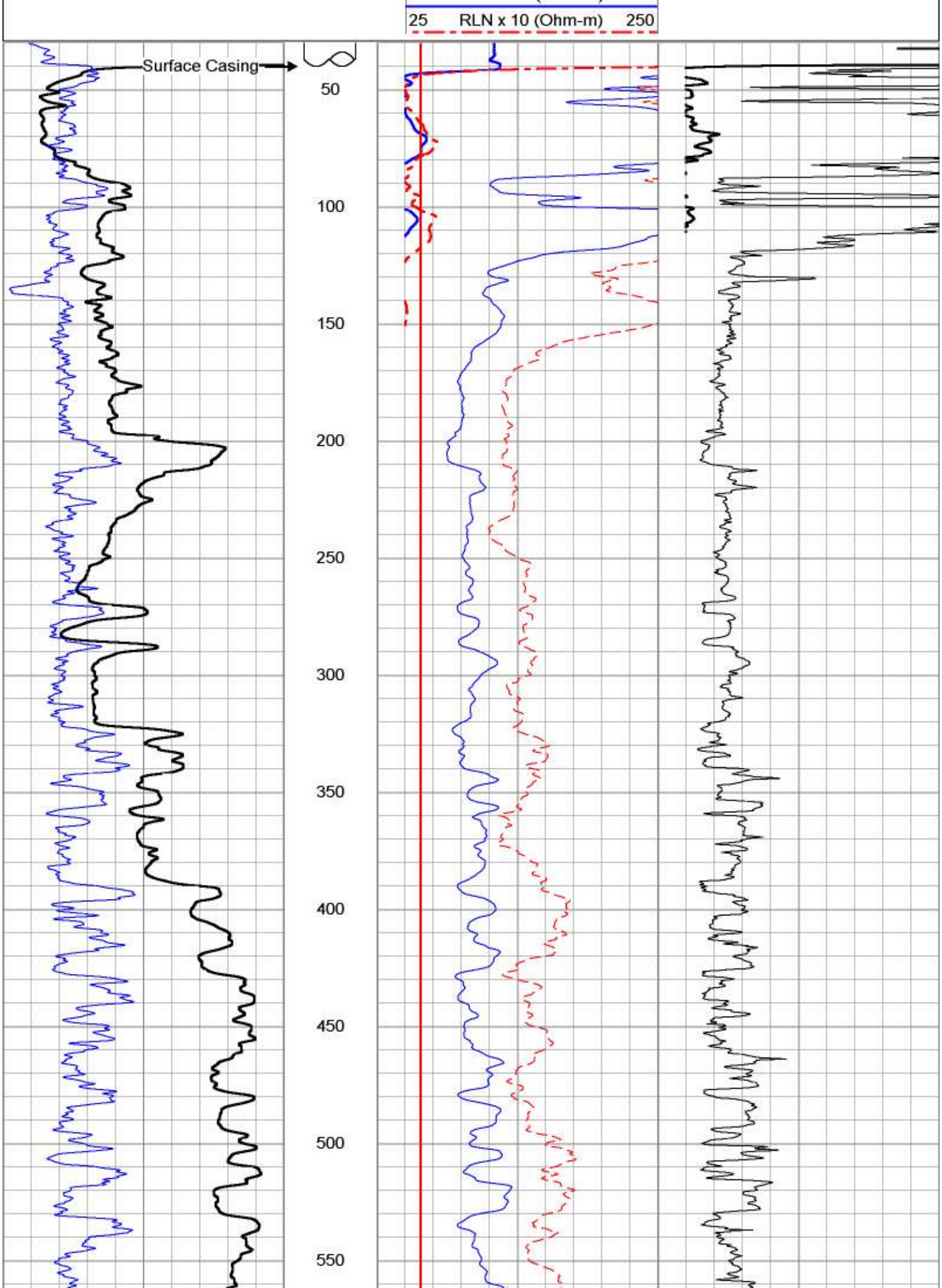
Serial Number:	D1	
Tool Model:	ELOG	
Performed:	Mon Sep 29 13:55:50 2008	
Calibrator Value:	162	GAPI
Background Reading:	151.12	cps
Calibrator Reading:	599.794	cps
Sensitivity:	0.361064	GAPI/cps

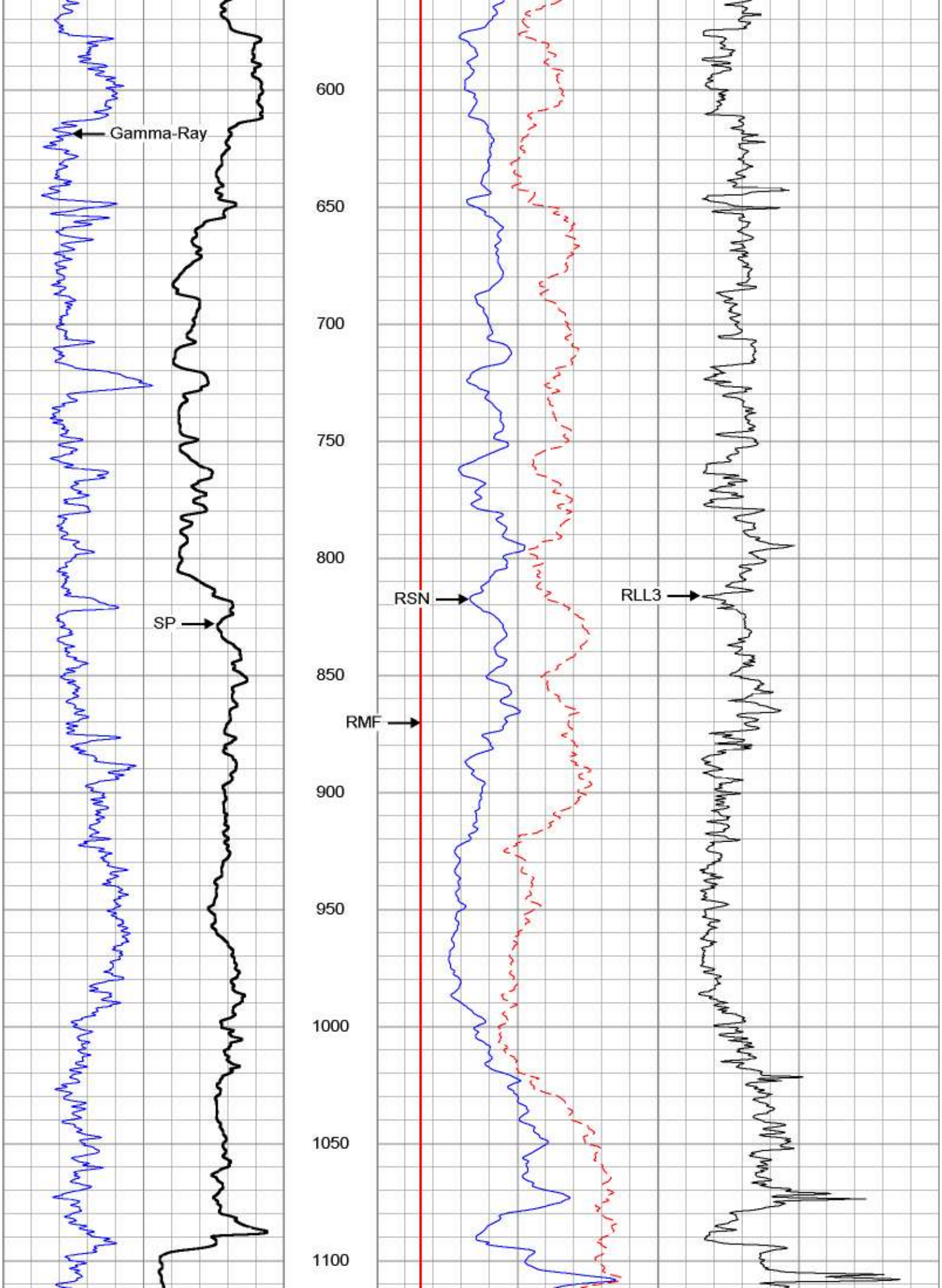
Database File:	15004.db
Dataset Pathname:	wdc/well/run1/elog
Presentation Format:	ELOG
Dataset Creation:	Fri Dec 04 17:30:24 2009 by Log Warrior Version 6.6
Charted by:	Depth in Feet scaled 1:600

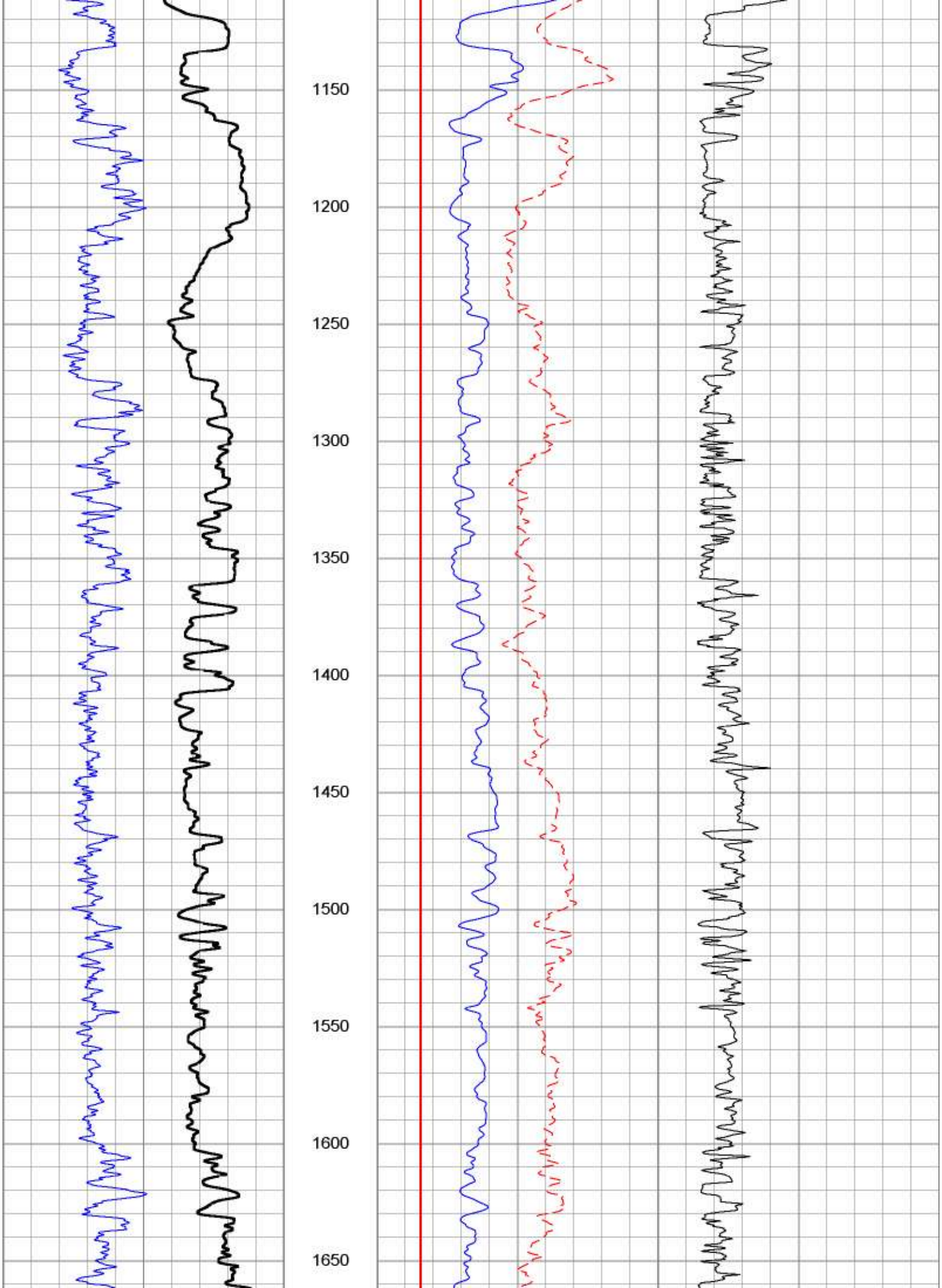
-80	SP (mV)	20
20	Gamma-Ray (GAPI)	200

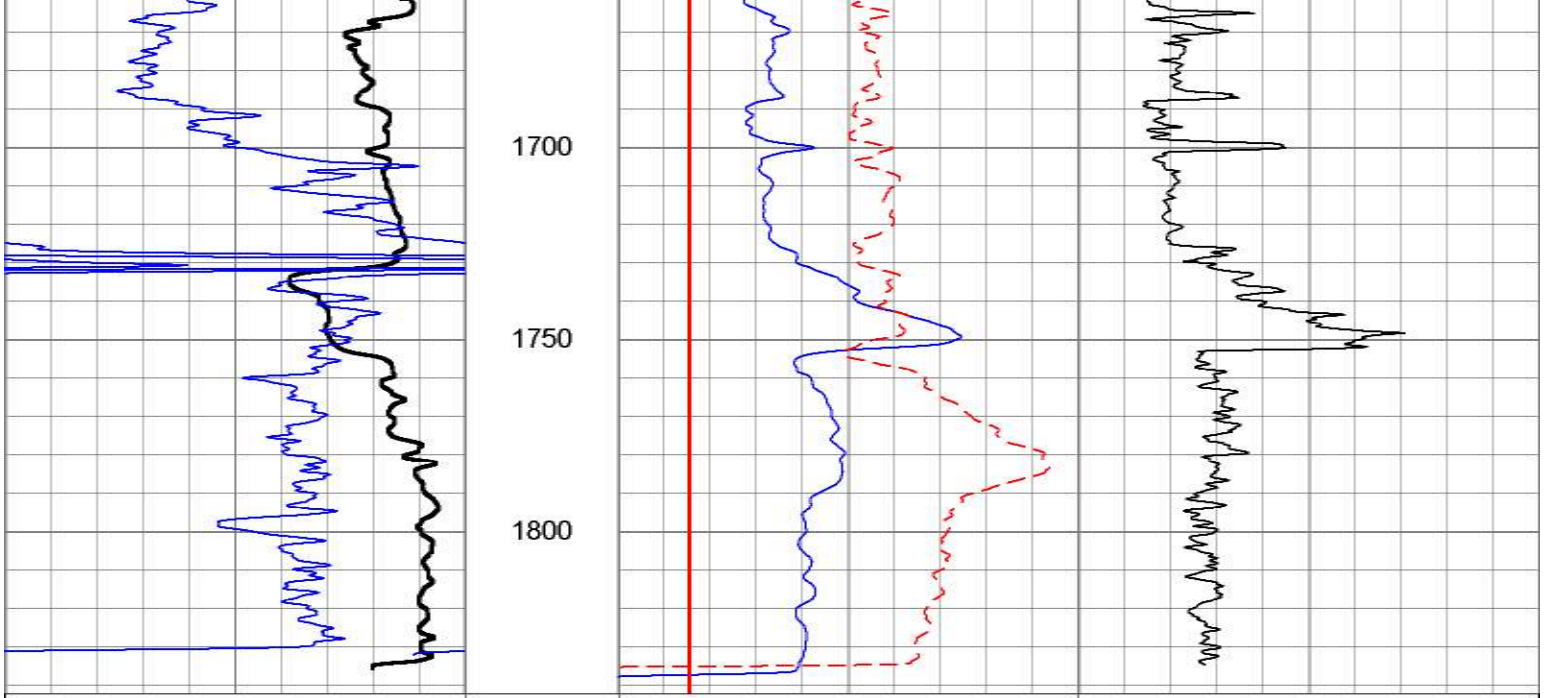
0	RSN (Ohm-m)	25
0	RLN (Ohm-m)	25
0	RMF (Ohm-m)	25
25	RSN x 10 (Ohm-m)	250

0	LGRD2 (Ohm-m)	25
25	RLL3 x 10 (Ohm-m)	250


25 RLN x 10 (Ohm-m) 250
Surface Casing
50
100
150
200
250
300
350
400
450
500
550


Gamma-Ray
SP
RSN
RMF
RLL3
600
650
700
750
800
850
900
950
1000
1050
1100


1150
1200
1250
1300
1350
1400
1450
1500
1550
1600
1650



-80	SP (mV)	20	0	RSN (Ohm-m)	25	0	LGRD2 (Ohm-m)	25
20	Gamma-Ray (GAPI)	200	0	RLN (Ohm-m)	25	25	RLL3 x 10 (Ohm-m)	250
			0	RMF (Ohm-m)	25			
			25	RSN x 10 (Ohm-m)	250			
			25	RLN x 10 (Ohm-m)	250			

PACIFIC SURVEYS

LATEROLOG 3
GAMMA-RAY

Job No.
15004

Company WDC EXPLORATION & WELLS
Well TW-2
Field FORD DRY LAKE
County RIVERSIDE State CA

Location:

1/4 Mile N of 10 Fwy @ Wileys Well Road
GPS: N33o 36.748' W114o 54.485'

Sec. Twp. Rge.

Other Services:

ELOG/GR
SNC/VDL
DIL/DEV
CAL

Permanent Datum	G.L.	Elevation above perm. datum	Elevation
Log Measured From	G.L. 0'		K.B.
Drilling Measured From	G.L.		D.F.
			G.L.

Date	12-04-09		
Run Number	ONE		
Depth Driller	1835'		
Depth Logger	1840'		
Bottom Logged Interval	1840'		
Top Log Interval	30'		
Casing Driller	11" @ 40'		
Casing Logger	40'		
Bit Size	10.625" @ 1240'	10" @ 1835'	
Type Fluid in Hole	BENTONITE		
Density / Viscosity	NA		
pH / Fluid Loss	NA		
Source of Sample	PIT		
Rm @ Meas. Temp	4.90 @ 77F		
Rmf @ Meas. Temp	3.90 @ 77F		
Rmc @ Meas. Temp	NA		
Source of Rmf / Rmc	MEAS		
Rm @ BHT	NA		
Time Circulation Stopped	4 HOURS		
Time Logger on Bottom	0520 pm		
Max. Recorded Temperature	NA		
Equipment Number	PS-1		
Location	LA		
Recorded By	Ozman Trad		
Witnessed By	Nat Beal		

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Comments

Gamma Ray Calibration Report

Serial Number: 13
Tool Model: GROH
Performed: Mon Sep 29 14:35:52 2008

Calibrator Value: 162 GAPI

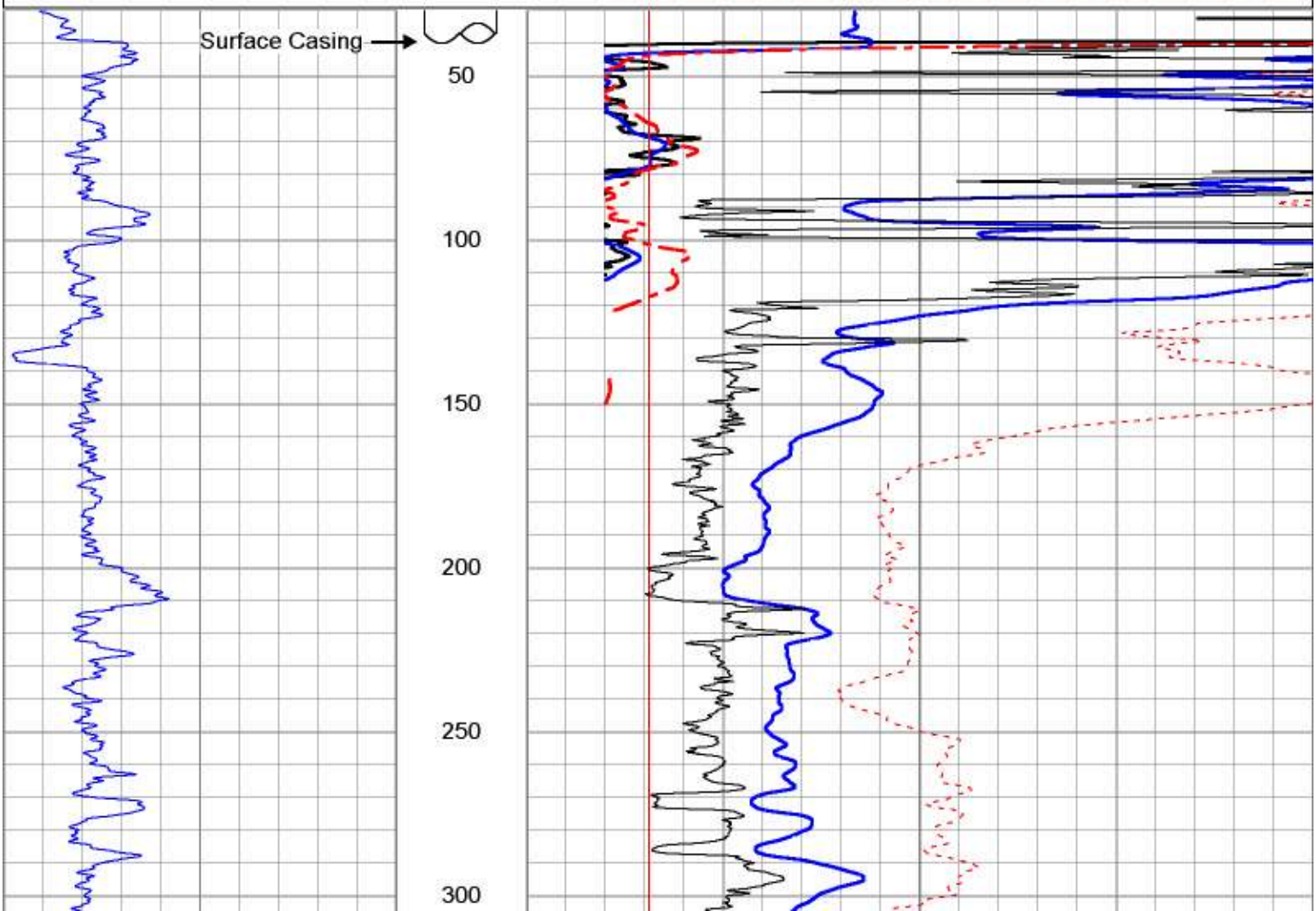
Background Reading:	36.9056	
Calibrator Reading:	160.261	
Sensitivity:	1.31328	GAPI/

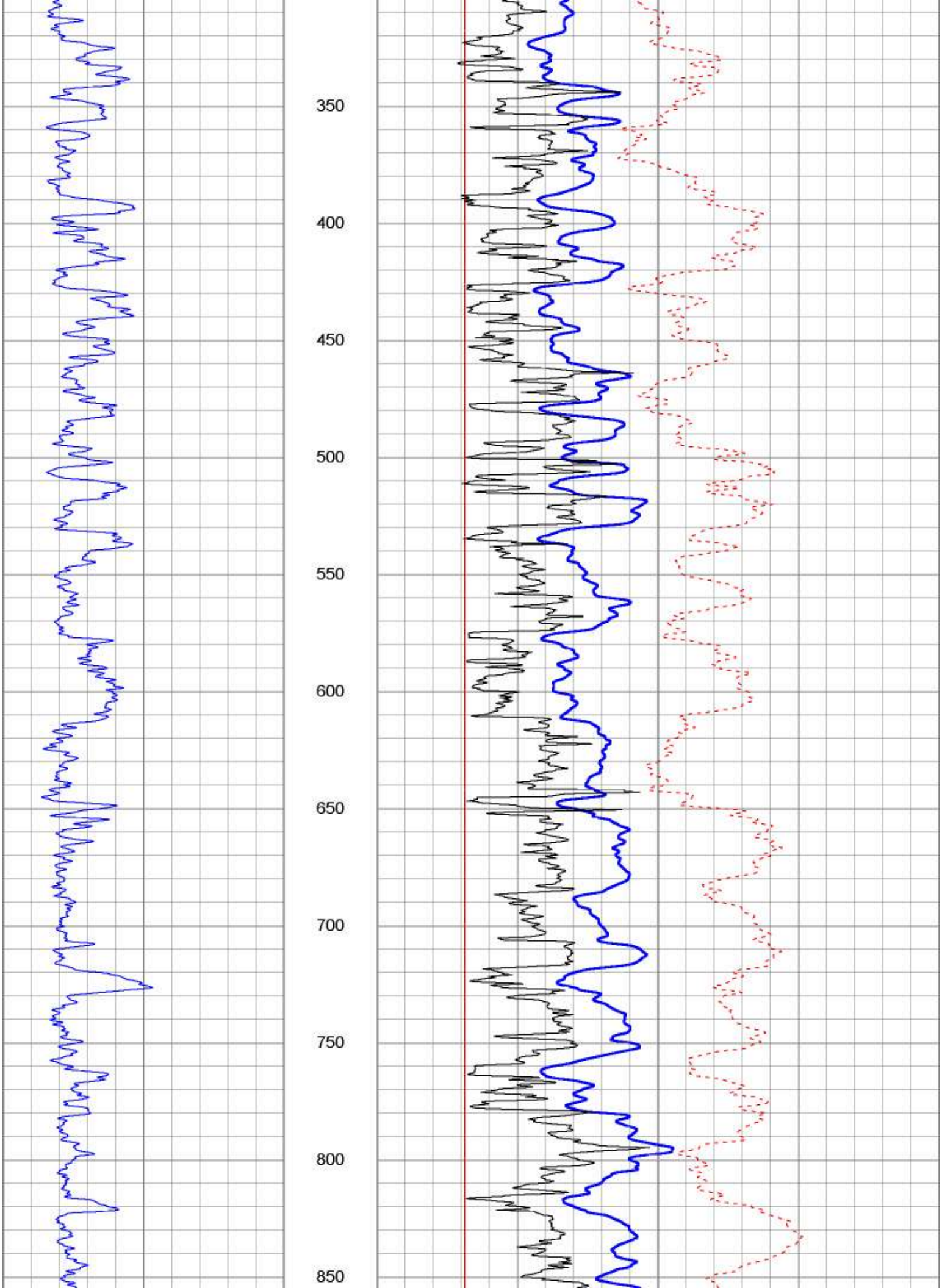
Simplec Long Guard Calibration Report

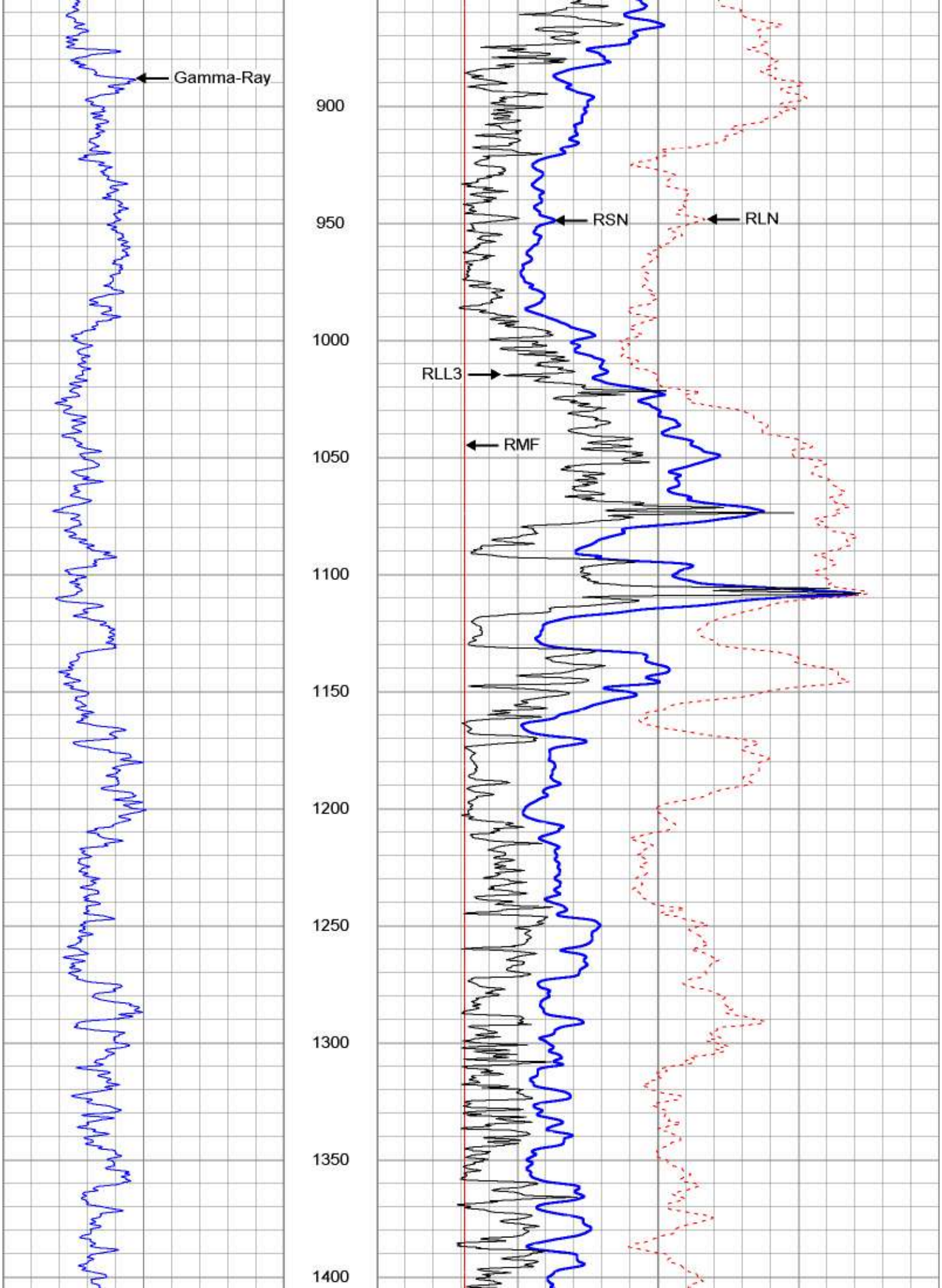
Serial Number:	81
Tool Model:	M&W
Performed:	Fri Aug 28 10:19:47 2009

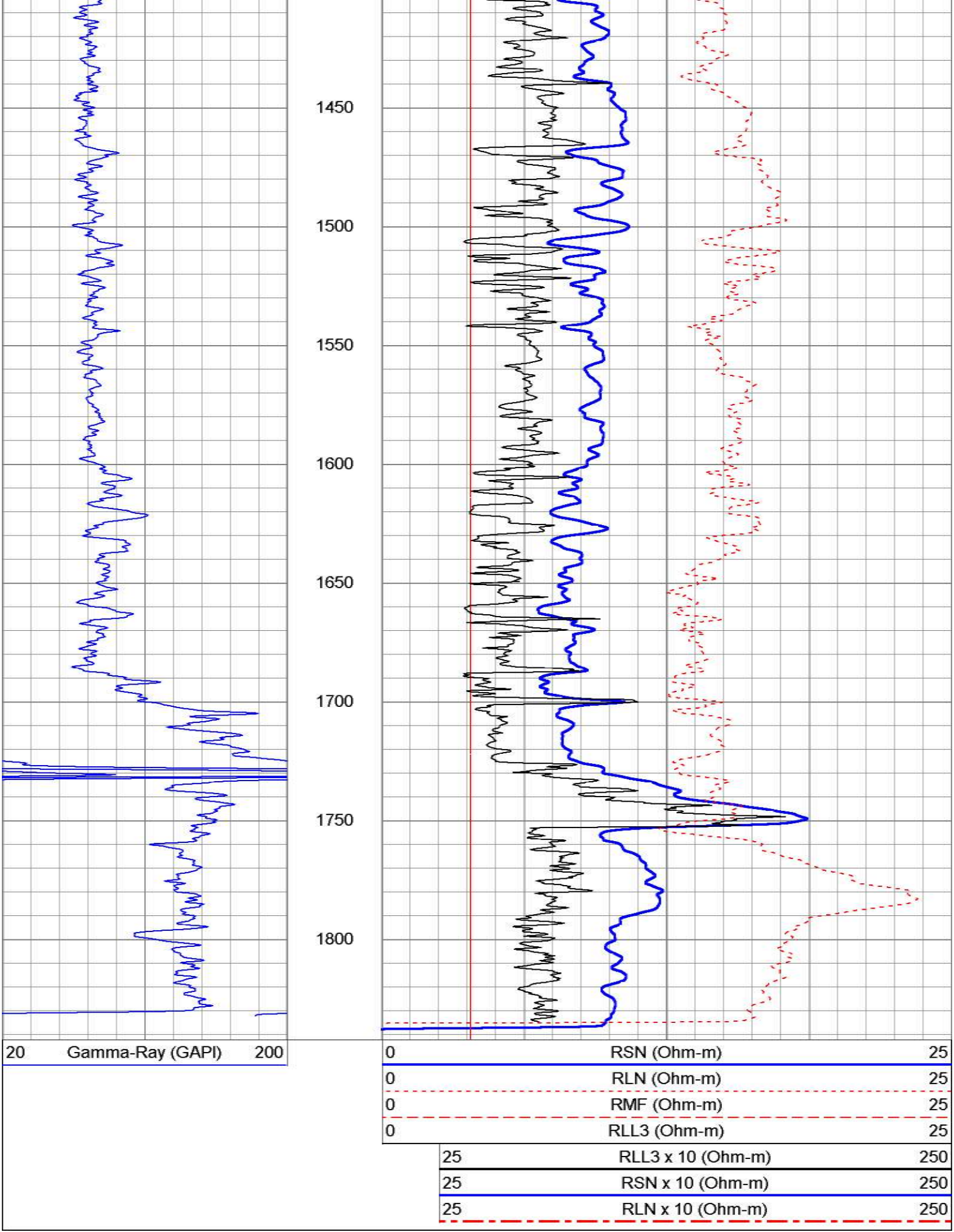
System Reading	Calibration Reference	
0.311	2.500	Ohm-m
0.613	5.000	
5.855	50.000	
28.787	250.000	
55.822	500.000	

Database File:	15004.db
Dataset Pathname:	wdc/well/run1/ll3
Presentation Format:	GUARD
Dataset Creation:	Fri Dec 04 18:59:52 2009 by Log Warrior Version 6.6
Charted by:	Depth in Feet scaled 1:600




350
400
450
500
550
600
650
700
750
800
850


Gamma-Ray
900
950
1000
1050
1100
1150
1200
1250
1300
1350
1400
RSN
RLN
RLL3
RMF


1450
1500
1550
1600
1650
1700
1750
1800
20 Gamma-Ray (GAPI) 200
0 RSN (Ohm-m) 25
0 RLN (Ohm-m) 25
0 RMF (Ohm-m) 25
0 RLL3 (Ohm-m) 25
25 RLL3 x 10 (Ohm-m) 250
25 RSN x 10 (Ohm-m) 250
25 RLN x 10 (Ohm-m) 250

PACIFIC SURVEYS

SONIC VELOCITY VARIABLE DENSITY

Job No. 15004

Company WDC EXPLORATION & WELLS
Well TW-2
Field FORD DRY LAKE
County RIVERSIDE State CA

Location:
1/4 Mile N of 10 Fwy @ Wileys Well Road
GPS: N33o 36.748' W114o 54.485'
Sec. Twp. Rge.

Other Services:
LL3/GR
ELOG
DIL/DEV
CAL

Permanent Datum	G.L.	Elevation above perm. datum	Elevation
Log Measured From	G.L. 0'		K.B.
Drilling Measured From	G.L.		D.F.
			G.L.

Date	12-04-09	
Run Number	ONE	
Depth Driller	1835'	
Depth Logger	1840'	
Bottom Logged Interval	1840'	
Top Log Interval	30'	
Casing Driller	11" @ 40'	
Casing Logger	40'	
Bit Size	10.625" @ 1240'	10" @ 1835'
Type Fluid in Hole	BENTONITE	
Density / Viscosity	NA	
pH / Fluid Loss	NA	
Source of Sample	PIT	
Rm @ Meas. Temp	4.90 @ 77F	
Rmf @ Meas. Temp	3.90 @ 77F	
Rmc @ Meas. Temp	NA	
Source of Rmf / Rmc	MEAS	
Rm @ BHT	NA	
Time Circulation Stopped	4 HOURS	
Time Logger on Bottom	0520 pm	
Max. Recorded Temperature	NA	
Equipment Number	PS-1	
Location	LA	
Recorded By	Ozman Trad	
Witnessed By	Nat Beal	

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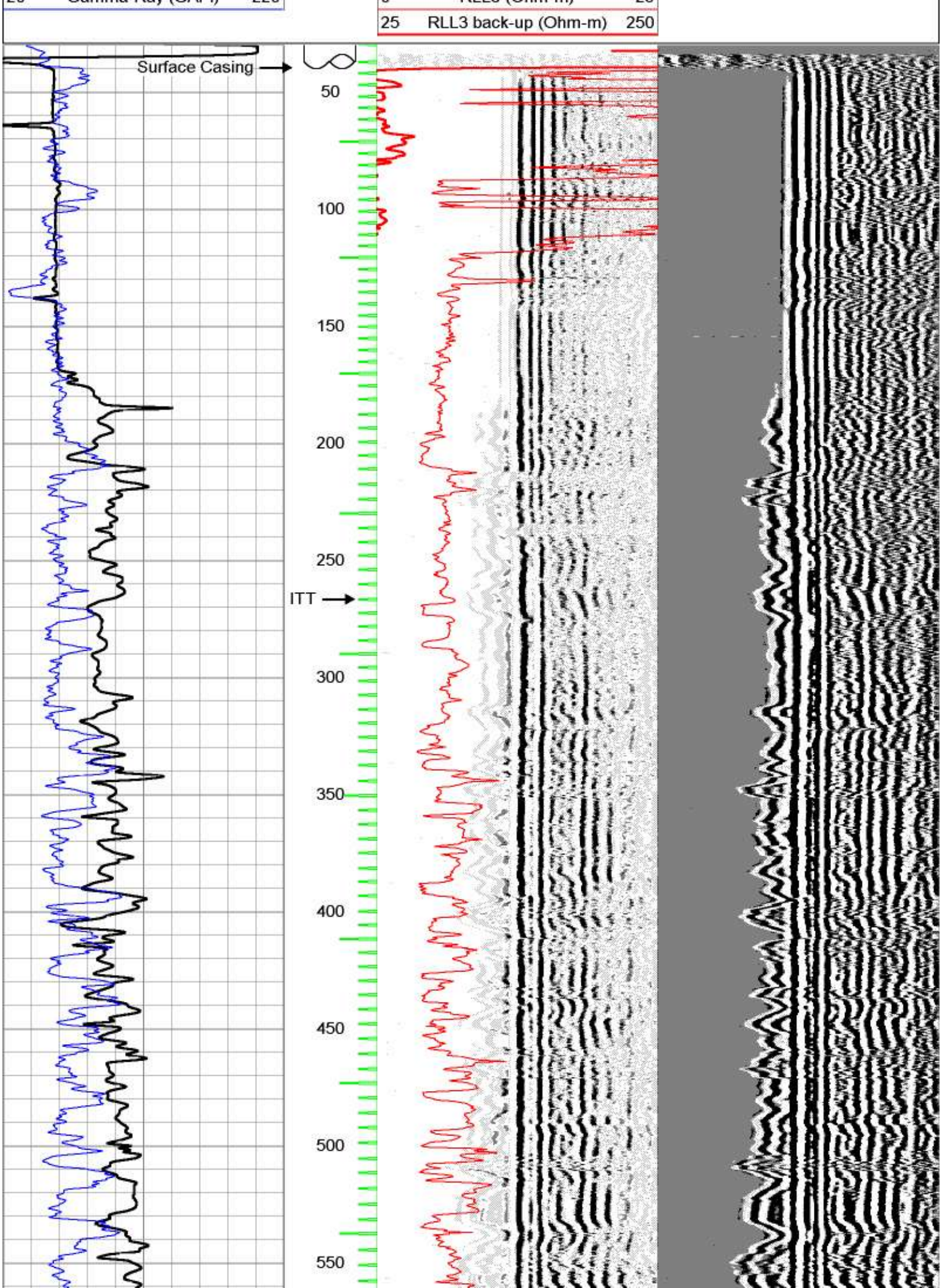
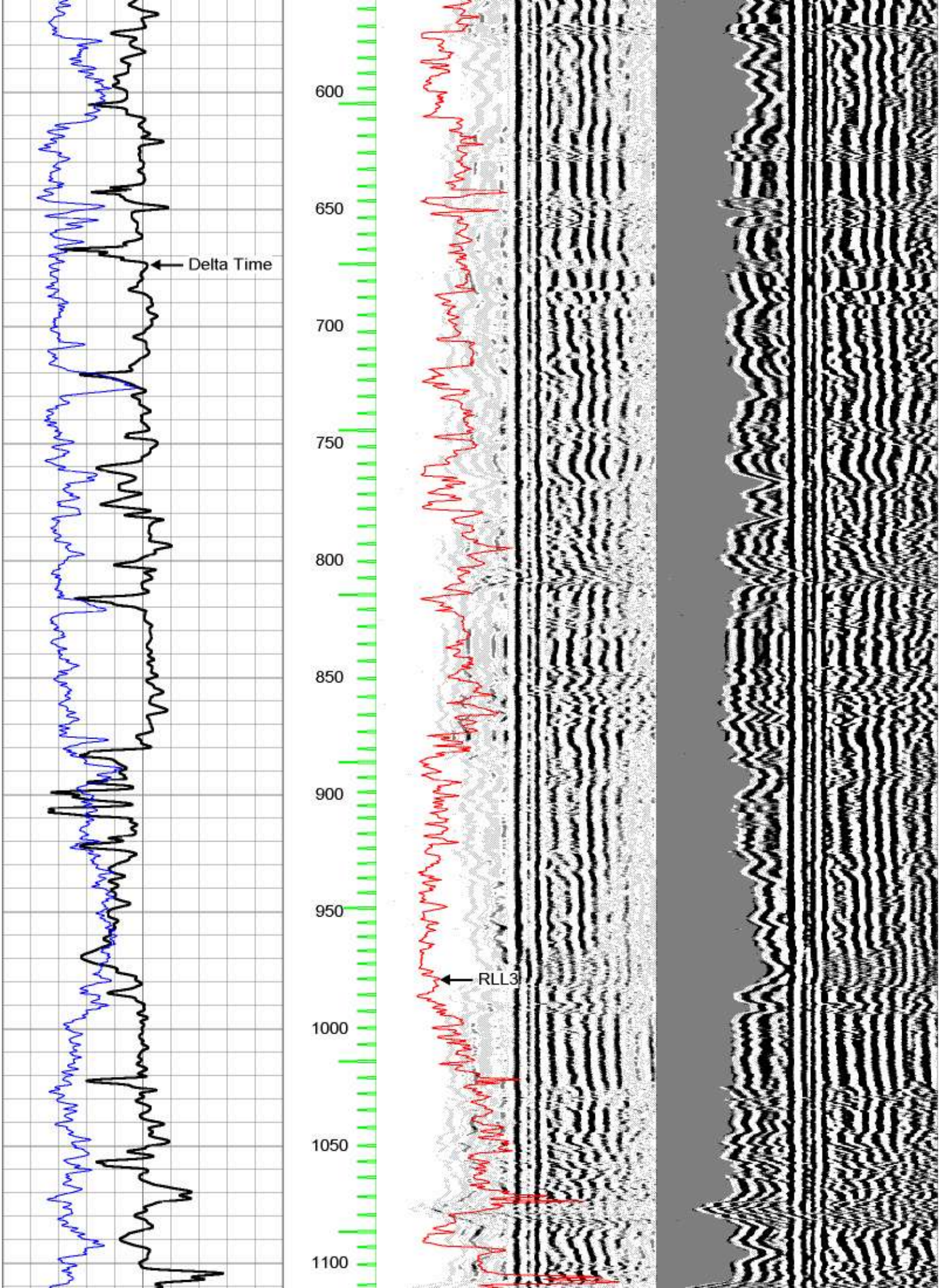
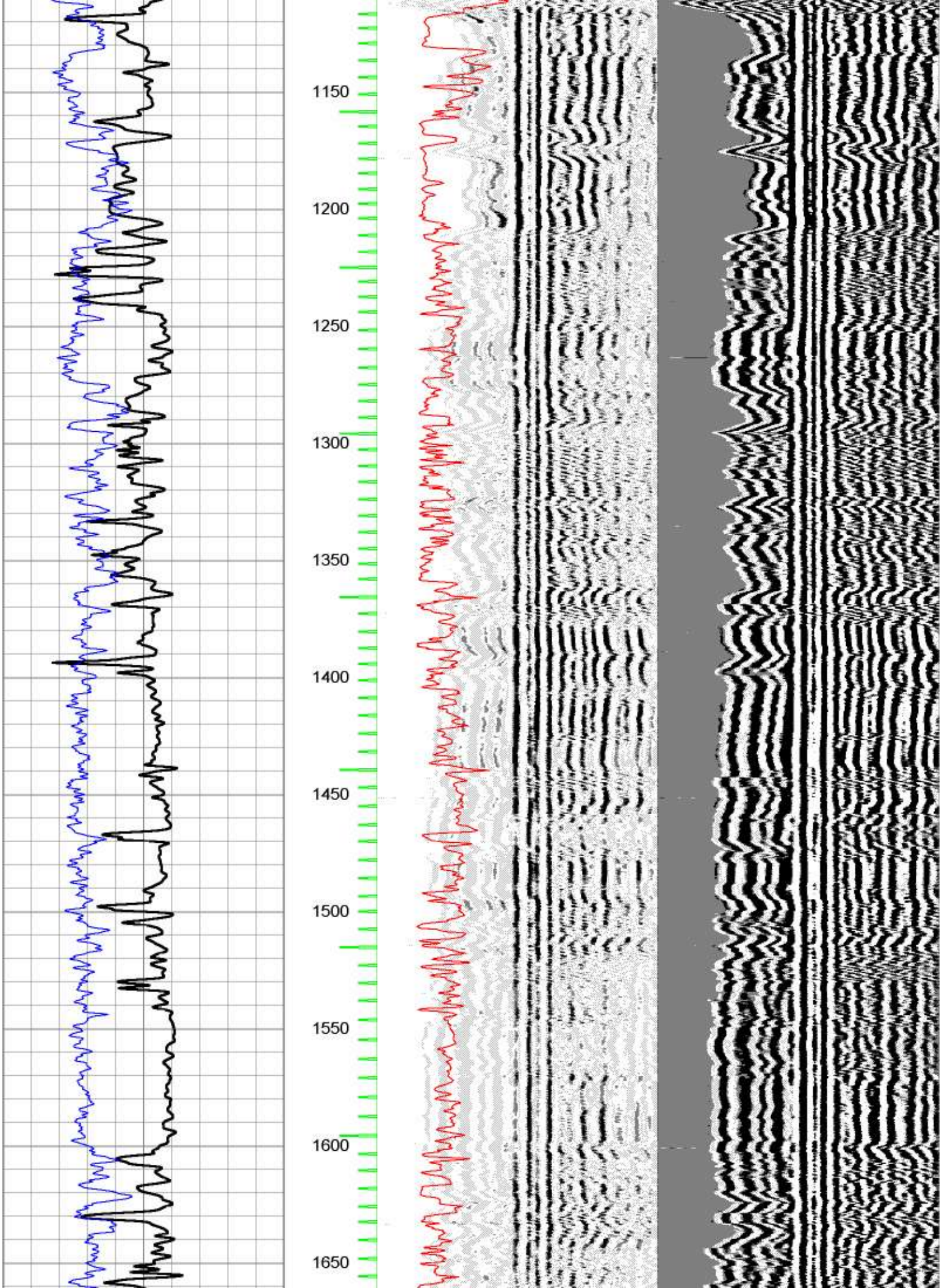
Comments

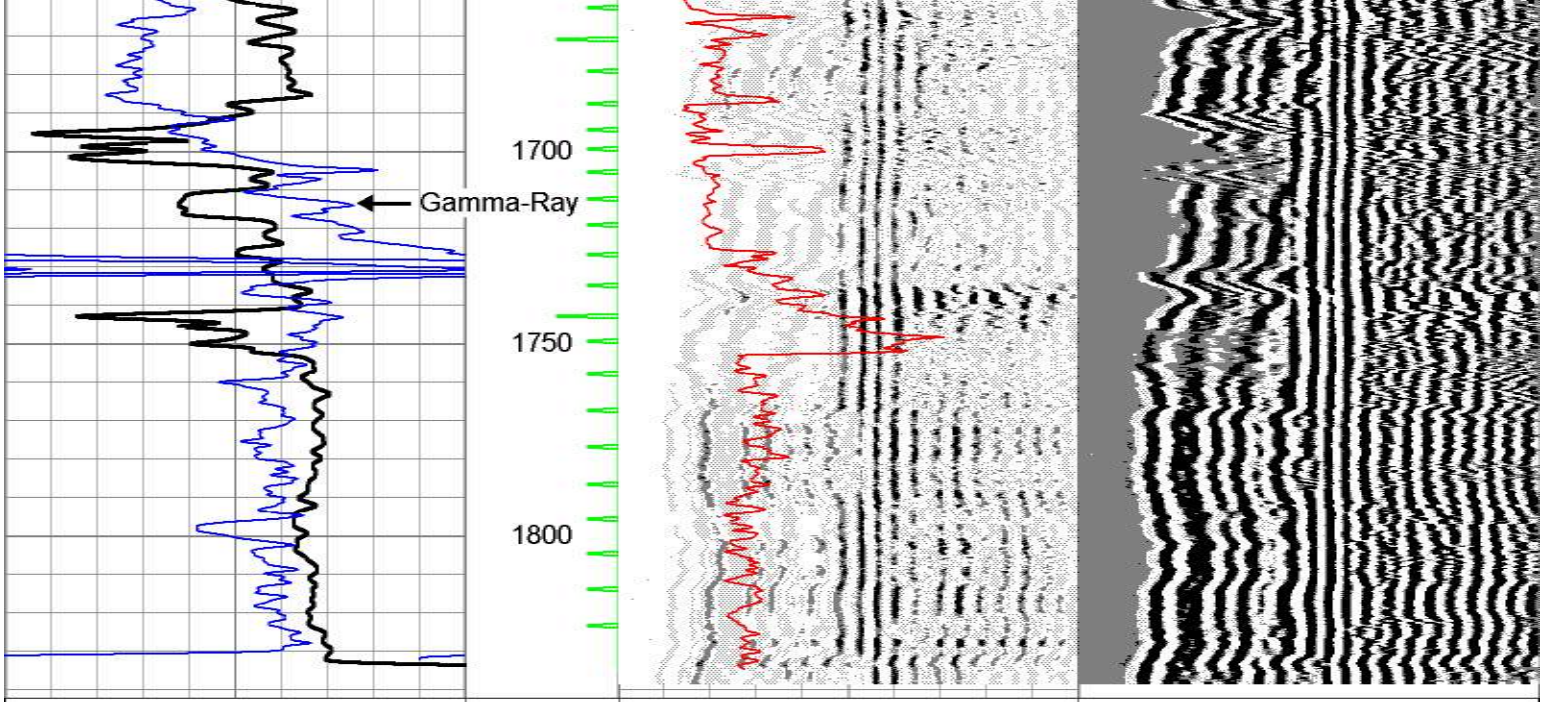
Database File: 15004.db
Dataset Pathname: wdc/well/run1/snc3
Presentation Format: SLT
Dataset Creation: Fri Dec 04 21:08:18 2009 by Log Warrior Version 6.6
Charted by: Depth in Feet scaled 1:600

240	DT (usec/ft)	40	ITT (msec)	500	Variable Density 5 ft	1600	500	Variable Density 5 ft	1600
20	Gamma-Ray (GAPI)	220		0	RLL3 (Ohm-m)	25			


25 RLL3 back-up (Ohm-m) 250
Surface Casing
50
100
150
200
250
ITT
300
350
400
450
500
550


Delta Time
600
650
700
750
800
850
900
950
1000
1050
1100
RLL3


1150
1200
1250
1300
1350
1400
1450
1500
1550
1600
1650


1700
Gamma-Ray
1750
1800
240 DT (usec/ft) 40
ITT (msec)
20 Gamma-Ray (GAPI) 220
500 Variable Density 5 ft 1600
0 RLL3 (Ohm-m) 25
25 RLL3 back-up (Ohm-m) 250
500 Variable Density 5 ft 1600

PACIFIC SURVEYS

DEVIATION SURVEY

Job No. 15004

Company WDC EXPLORATION & WELLS
Well TW-2
Field FORD DRY LAKE
County RIVERSIDE State CA

Location:

1/4 Mile N of 10 Fwy @ Wileys Well Road
GPS: N33o 36.748' W114o 54.485'

Sec. Twp. Rge.

Other Services:

LL3/GR
SNC/VDL
DIL/DEV
CAL

Permanent Datum	G.L.	Elevation above perm. datum	Elevation
Log Measured From	G.L. 0'		K.B.
Drilling Measured From	G.L.		D.F.
			G.L.

Date	12-04-09		
Run Number	ONE		
Depth Driller	1835'		
Depth Logger	1840'		
Bottom Logged Interval	1610'		
Top Log Interval	0'		
Casing Driller	11" @ 40'		
Casing Logger	40'		
Bit Size	10.625" @ 1240'	10" @ 1835'	
Type Fluid in Hole	BENTONITE		
Density / Viscosity	NA		
pH / Fluid Loss	NA		
Source of Sample	PIT		
Rm @ Meas. Temp	4.90 @ 77F		
Rmf @ Meas. Temp	3.90 @ 77F		
Rmc @ Meas. Temp	NA		
Source of Rmf / Rmc	MEAS		
Rm @ BHT	NA		
Time Circulation Stopped	4 HOURS		
Time Logger on Bottom	0520 pm		
Max. Recorded Temperature	NA		
Equipment Number	PS-1		
Location	LA		
Recorded By	Ozman Trad		
Witnessed By	Nat Beal		

<<< Fold Here >>>

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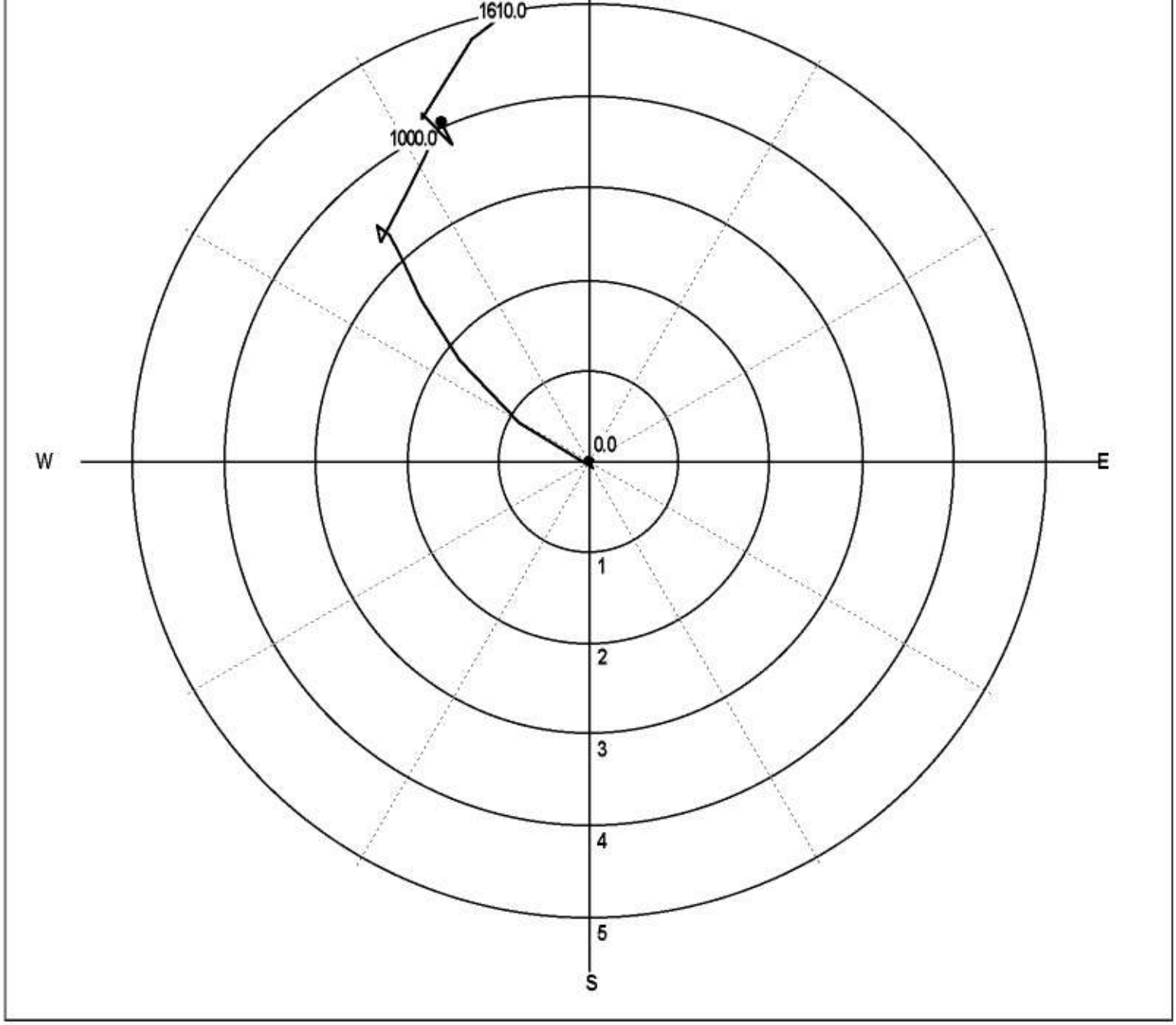
Comments

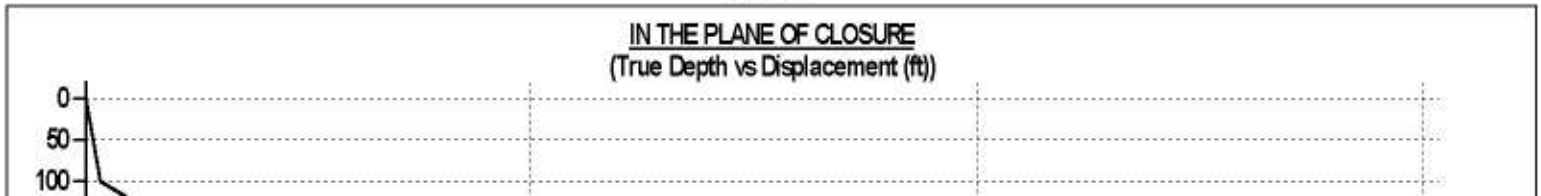
TW-2

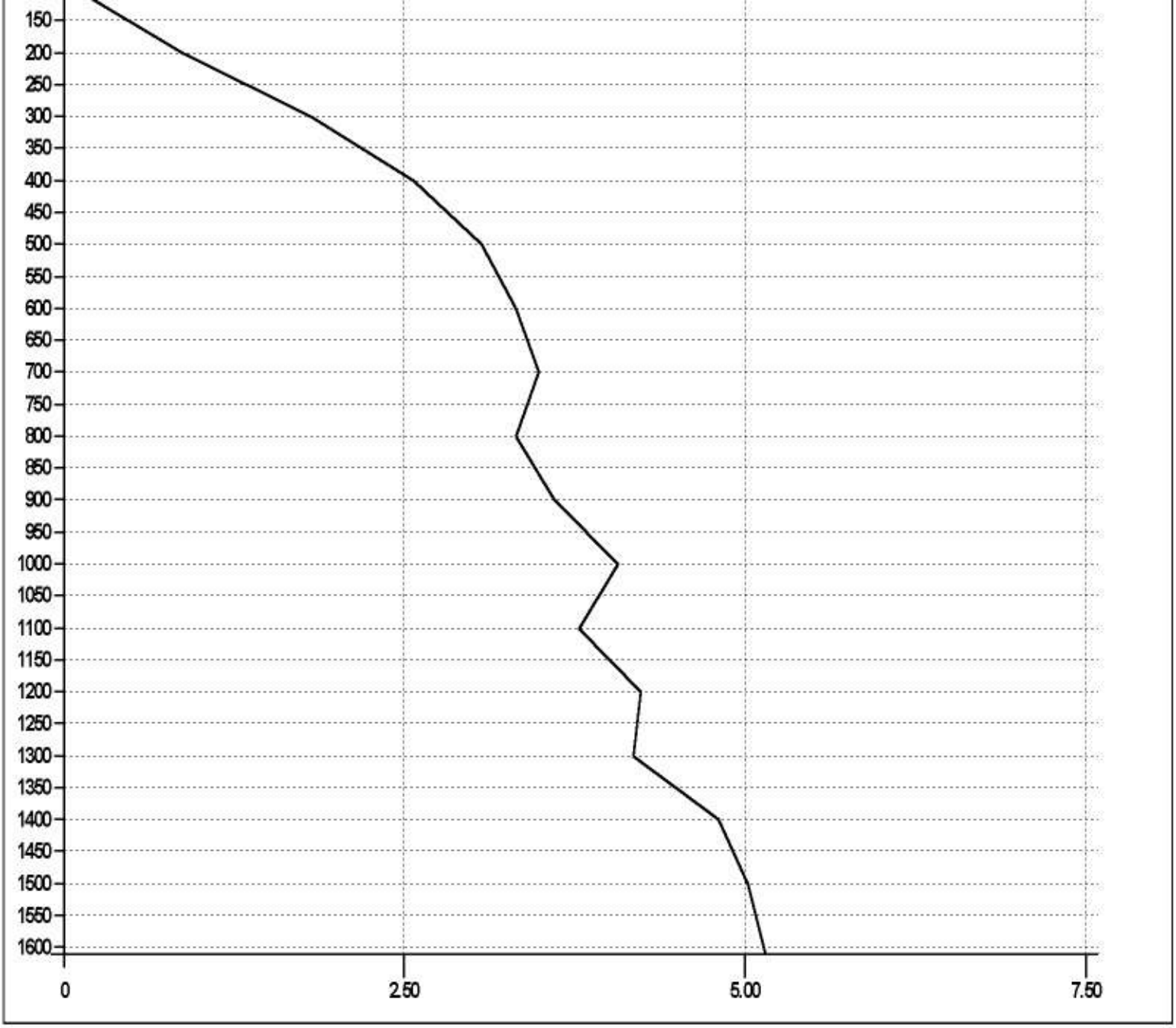
CROSS - SECTION
(Displacement in ft)

N

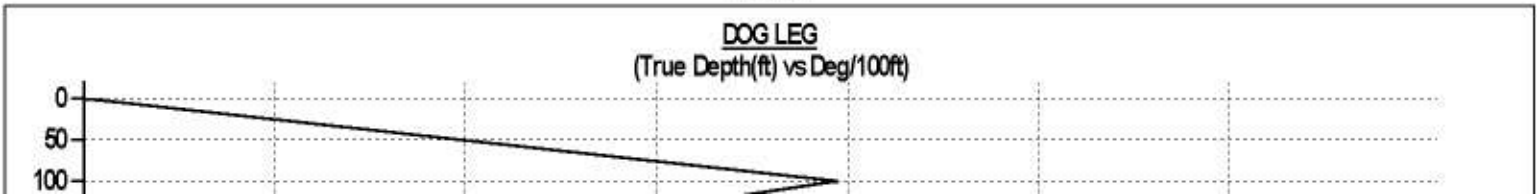

1610.0
1000.0
0.0
W
E
1
2
3
4
5
S

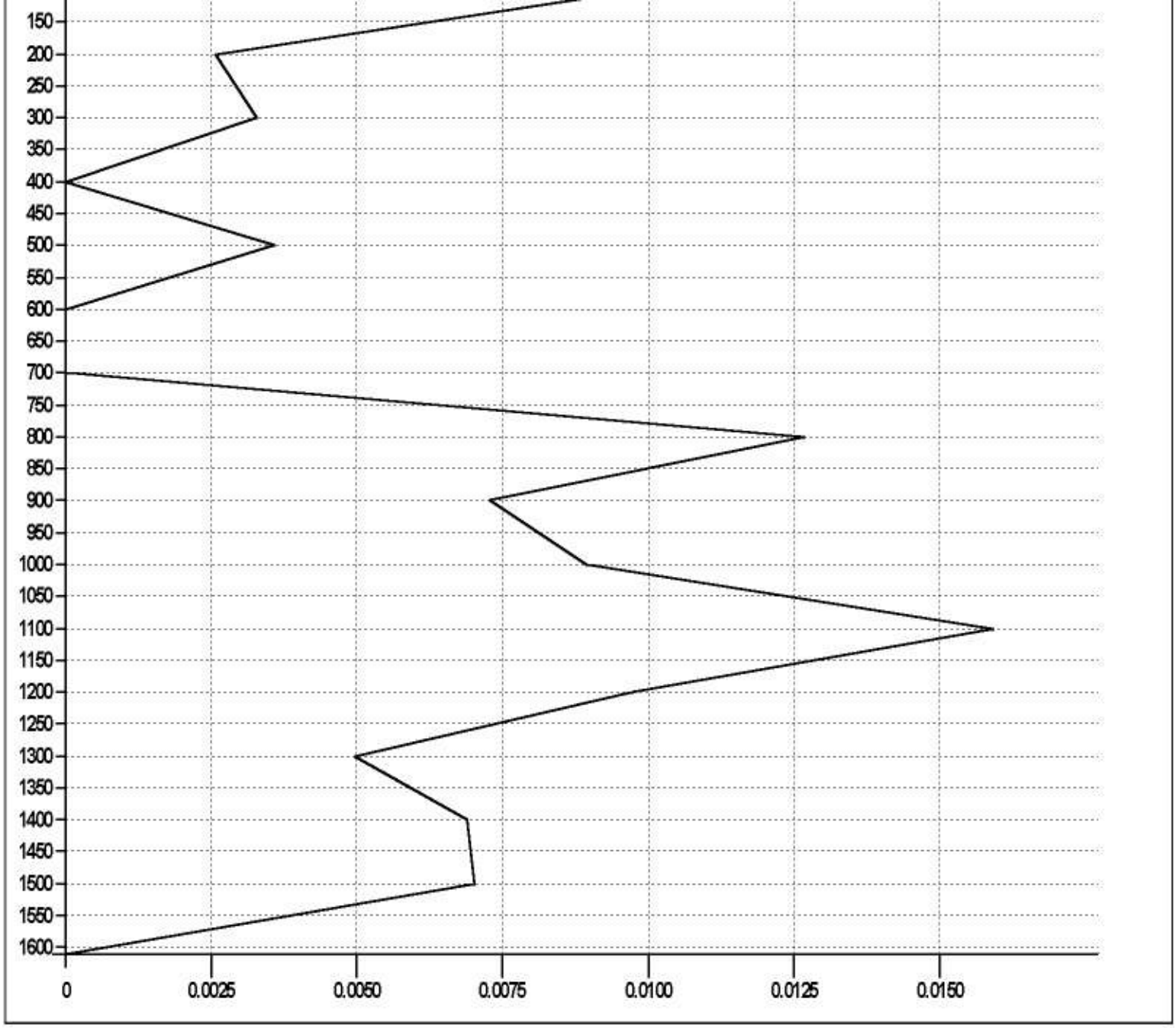
TW-2


IN THE PLANE OF CLOSURE
(True Depth vs Displacement (ft))
0
50
100

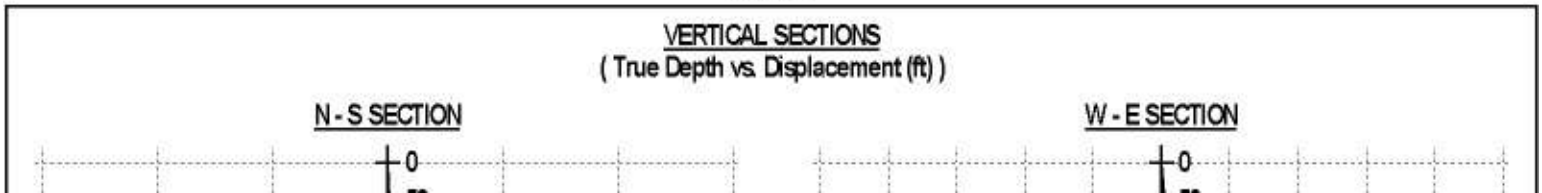

150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500
1550
1600
0
2.50
5.00
7.50

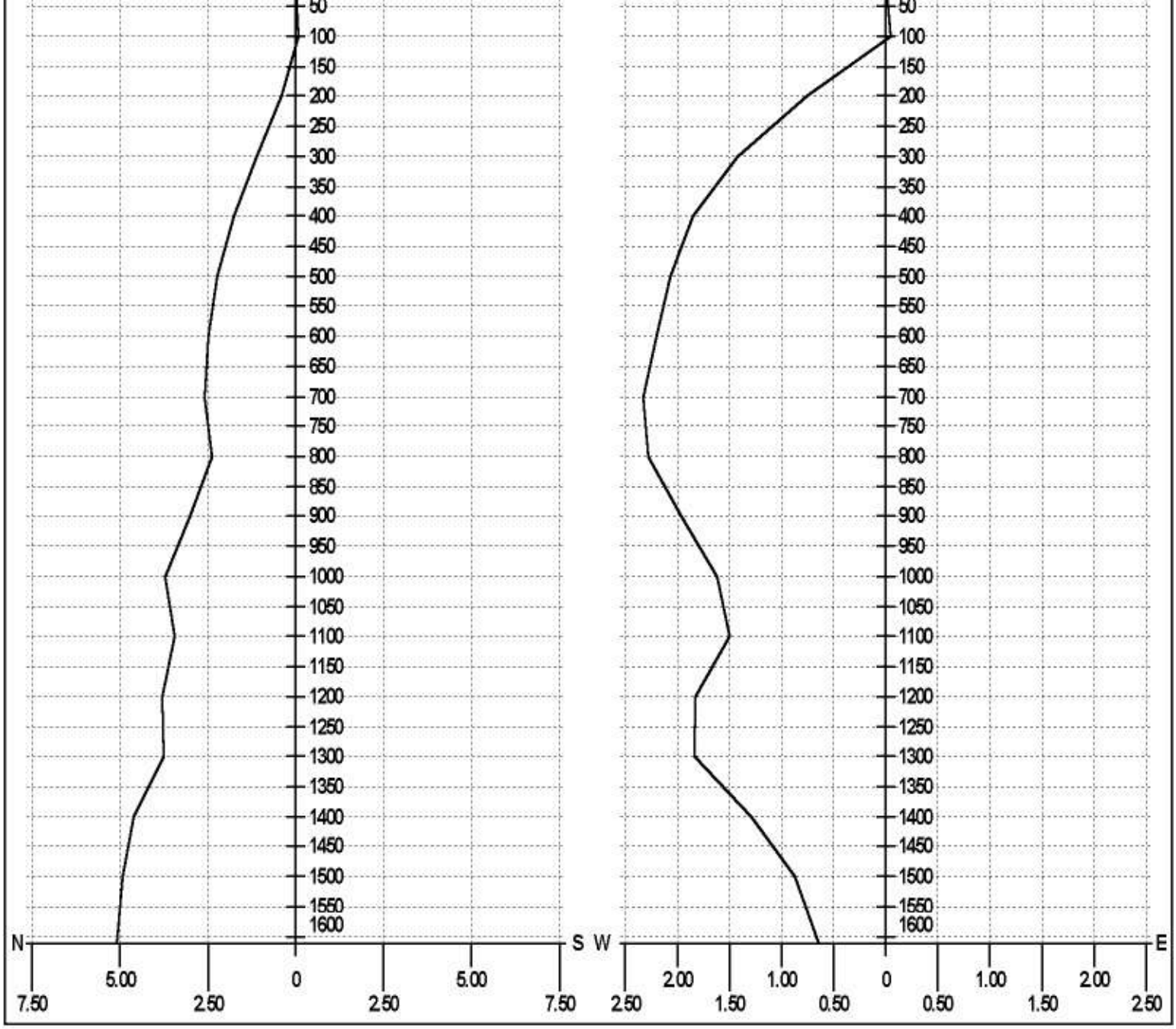
TW-2


DOG LEG
(True Depth(ft) vs Deg/100ft)
0
50
100


150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500
1550
1600
0
0.0025
0.0050
0.0075
0.0100
0.0125
0.0150

TW-2


VERTICAL SECTIONS
(True Depth vs. Displacement (ft))
N - S SECTION
W - E SECTION
0



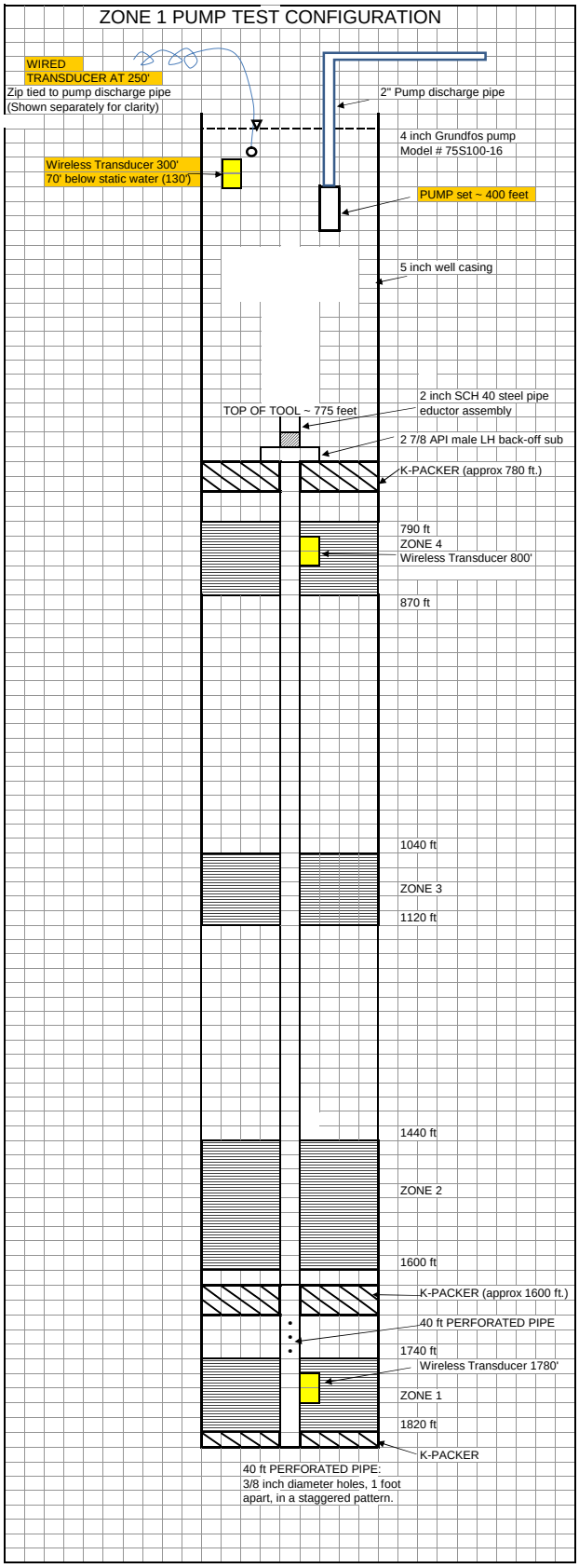
Entered Depth (ft)	Entered Inc. (deg)	Entered Azimuth (deg)	TVD (ft)	N/S Dep. (ft)	W/E Dep. (ft)	Total Dep. (ft)	Dep. Angle (deg)	Dog Leg (deg/100f
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.0000
100.0	0.50	296.40	100.0	-0.1	0.0	0.1	-31.80	0.0099

200.0	0.60	307.80	200.0	0.4	-0.8	0.9	-60.45	0.0026
300.0	0.50	324.50	300.0	1.1	-1.4	1.8	-51.80	0.0033
400.0	0.40	330.20	400.0	1.8	-1.9	2.6	-46.05	0.0000
500.0	0.20	339.60	500.0	2.3	-2.1	3.1	-42.55	0.0036
600.0	0.10	322.10	600.0	2.5	-2.2	3.3	-41.51	0.0000
700.0	0.10	298.50	700.0	2.6	-2.3	3.5	-41.91	0.0000
800.0	0.60	36.10	800.0	2.4	-2.3	3.3	-43.61	0.0127
900.0	0.20	18.70	900.0	3.0	-2.0	3.6	-33.09	0.0073
1000.0	0.70	33.40	1000.0	3.7	-1.6	4.1	-23.57	0.0090
1100.0	0.10	275.30	1100.0	3.5	-1.5	3.8	-23.41	0.0159
1200.0	0.50	356.30	1200.0	3.8	-1.8	4.2	-25.72	0.0097
1300.0	0.70	15.80	1300.0	3.8	-1.8	4.2	-26.15	0.0050
1400.0	0.50	48.80	1400.0	4.6	-1.3	4.8	-15.59	0.0069
1500.0	0.10	55.90	1500.0	4.9	-0.9	5.0	-10.05	0.0070
1610.0	0.20	54.60	1610.0	5.1	-0.6	5.1	-7.14	0.0000

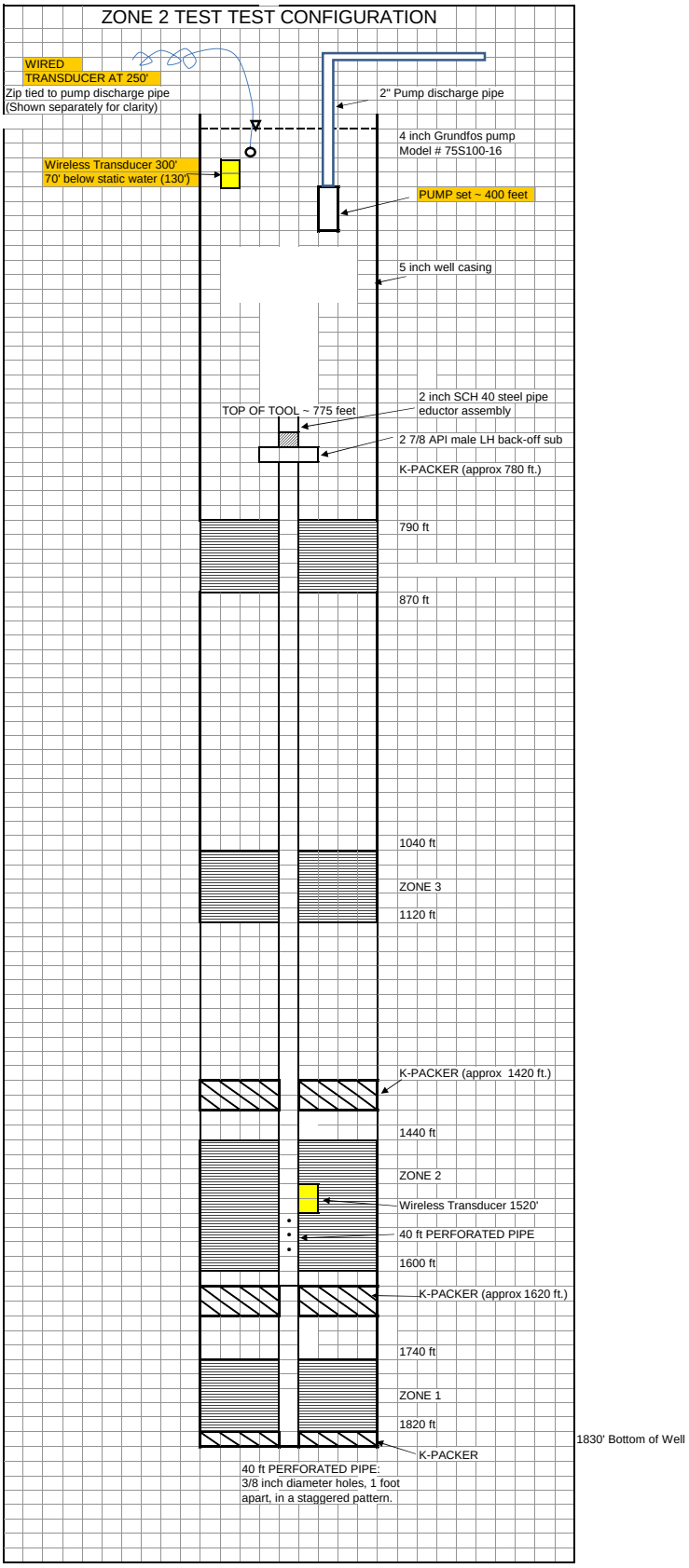
```
0□0□0
100□.5□296.4
200□.6□307.8
300□.5□324.5
400□.4□330.2
500□.2□339.6
600□.1□322.1
700□.1□298.5
800□.6□36.1
900□.2□18.7
1000□.7□33.4
1100□.1□275.3
1200□.5□356.3
1300□.7□15.8
1400□.5□48.8
1500□.1□55.9
1610□.2□54.6
```

ATTACHMENT 4: PUMPING TEST CONFIGURATIONS

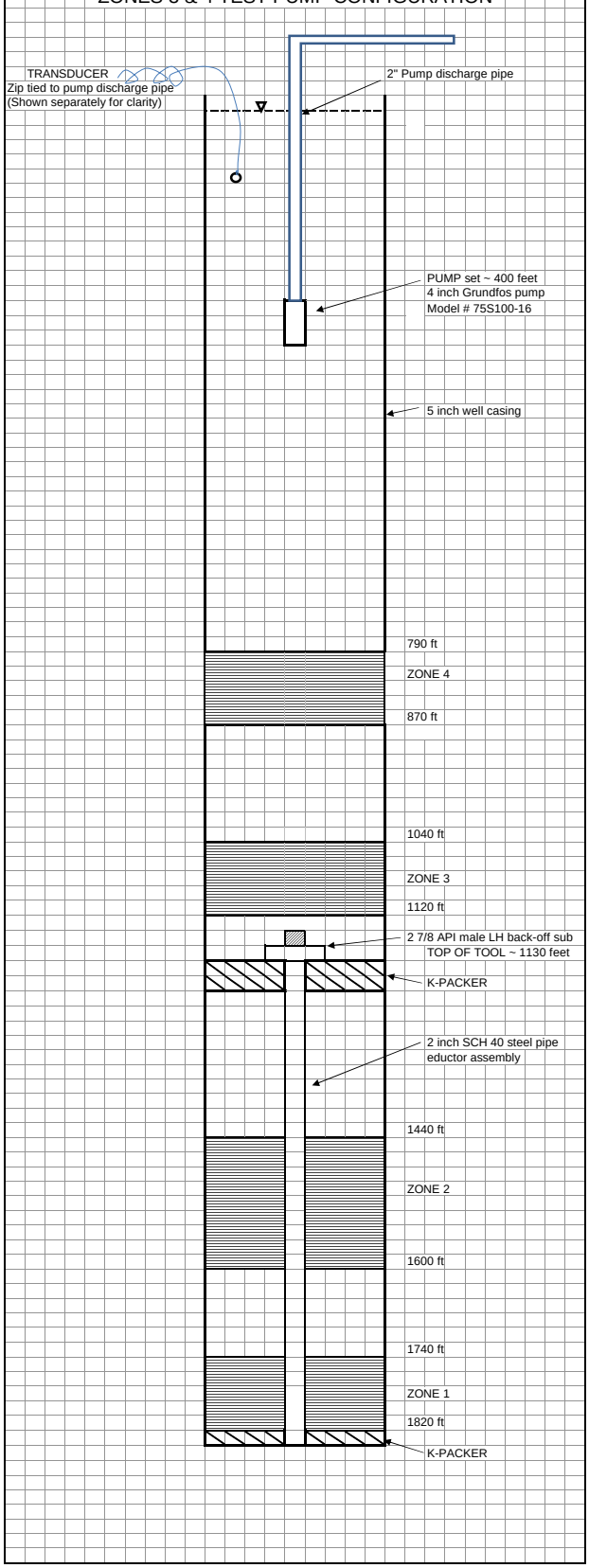
ZONE 1 PUMP TEST CONFIGURATION



ZONE 2 TEST TEST CONFIGURATION



ZONES 3 & 4 TEST PUMP CONFIGURATION



ATTACHMENT 5: PUMPING TEST FIELD DATA SHEETS

Zone 1 Retest 1740'-1820'

Date: 2-1-2010 Project Genesis Sheet 1 of 2

Time	Elapsed Time	Totalizer Meter (x ~~0~~)	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)	
9:00	~~0~~	02831919		133.7	Start	pump		Adjust Flowrate
9:15	15	02832823	60.2				93	
9:30	15	02833578	50.3				100	
10:00	30	02835153	52.5				105	
10:30	30	02836740	52.9				107	Shut-off pump
11:00			let	well	recover			
11:30			let	well	recharge			
12:00	~~0~~	02836841						Re-start test
12:05	5 mnts	02837103	52.4				105	
12:10	5 mnts	02837350	49.4				103	
12:15	5 mnts	02837593	48.6				103	
12:20	5 mnts	02837840	49.4				104	
12:25	5 mnts	02838083	48.6				103	
12:30	5 mnts	02838333	50.~~0~~				104	
12:45	15 mnts	02839072	49.2				102	
1:00	15 mnts	02839830	50.5				103	
1:30	30	02841333	50.1				103	
2:00	30	02842835	50.~~0~~				104	
2:30	30	02844340	50.1				104	
3:00	30	02845847	50.2				105	
3:30	30	02847351	50.1				105	
4:00	30	02848860	50.3				105	
4:30	30	02850357	49.9				105	
5:00	30	02851845	49.6				105	
5:30	30	02853370	50.8				105	
6:07	37	02855200	49.4				105	
6:30	23	02856750	67.3				105	
7:00	30	02857955	40.1				105	Shift Change
7:30	30	02859390	47.8				105	
8:08	38	02861225	48.2				105	

Date: 2-2-10 Sheet 2 of 2

Time	Elapsed Time	Totalizer Meter (x_____)	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)
8:30	22	2862335	50.4				105
9:00	30	2863750	47.1				105
9:30	33	2865455	51.6				105
10:00	30	2866750	43.2				105
10:30	30	2868202	48.4				105
11:00	30	2869820	53.9				105
11:30	30	2871020	40.3				105
12:00	30	2872690	55.3				105
12:30	30	2874242	51.7				105
1:00	30	[illegible]	58.6				105
1:30	30	[illegible]	[illegible]				105
2:00	30	2879[illegible]	51.6				105
2:30	30	[illegible]	48.6				105
3:00	30	[illegible]	50.7				105
3:30	30	2883595	51.5				105
4:00	30	2885023	48.3				105
4:30	30	2886542	50.6				105
5:00	30	2888031	49.6				105
5:30	30	2889545	50.4				105
6:00	30	2891[illegible]	49.6				105
6:30	30	2892571	51.2				105
Shift Change 7:00	30	02893900	44.3				106
7:30	30	02895368	48.9				
8:00	30	02896850	49.4				
8:30	30	02898332	49.4				
8:55	25	02899586	50.16				
9:00				shut off	Pump		
		02899826		Final	Reading		

Zone 1 Retest 1740'-1820'

WDC Wells & Exploration	PROJECT NUMBER 260836W	WELL ID TW-2	Sheet 1 of 3

WELL DEVELOPMENT LOG

PROJECT: Genesis LOCATION: Blythe Ca.

DEVELOPMENT CONTRACTOR:

DEVELOPMENT METHOD AND EQUIPMENT USED:

START WATER LEVELS: START: END: LOGGER:

CASING VOLUME: CASING DIAMETER: SCREEN INTERVAL: 1740'-1820'

MAXIMUM DRAWDOWN DURING PUMPING:

RANGE AND AVERAGE DISCHARGE RATE:

TOTAL QUANTITY OF WATER DISCHARGED:

DISPOSITION OF DISCHARGE WATER:

MONITORING EQUIPMENT USED:

Date/ Time	Water Volume Discharged (gal)	Water Level (ft BTOC)	Temp. (°C)	pH	µS Conductivity (µmhos/cm)	FTU ~~NTU~~ Turbidity	Sand (ml/L)	Remarks (color, odor, sheen, sediment, etc.)
								Start test
9:00		133.7						
9:15			41.8	7.68	>3999	>1000	-0-	water very cloudy
9:30			48.2	7.50	>3999	181	-0-	water is clearing
10:00			49.6	7.54	>3999	50	-0-	water is clearing
10:30			49.5	7.57	>3999	29.80	-0-	water is clear (shut off pump)
11:00								let well recharge
11:30								let well recharge
pm 12:00								restart test
12:30			51	7.61	>3999	15.85	-0-	water is clear
1:00			52.6	7.53	>3999	16.58	-0-	water is clear
1:30			51.8	7.56	>3999	17.53	-0-	water is clear
2:00			54.5	7.53	>3999	6.36	-0-	water is clear
2:30			55	7.54	>3999	7.20	-0-	water is clear
3:00			54.3	7.55	>3999	9.14	-0-	water is clear
3:30			54.8	7.53	>3999	3.58	-0-	water is clear
4:00			54	7.54	>3999	4.43	-0-	water is clear
4:30			53.3	7.55	>3999	5.67	-0-	water is clear
5:00			53.8	7.51	>3999	4.71	-0-	water is clear
5:30			53.3	7.52	>3999	3.10	-0-	water is clear
6:00			51.1	7.75	>3999	4.01	-0-	water is clear
6:30			52.2	7.75	>3999	3.53	-0-	water is clear
shift change 7:00			51.8	7.77	>3999	5.88	-0-	water is clear

WDC Wells & Exploration	PROJECT NUMBER	WELL ID	Sheet 2 of 3

WELL DEVELOPMENT LOG

PROJECT : LOCATION :

DEVELOPMENT CONTRACTOR :

DEVELOPMENT METHOD AND EQUIPMENT USED :

START WATER LEVELS : START : END : LOGGER :

CASING VOLUME: CASING DIAMETER: SCREEN INTERVAL:

MAXIMUM DRAWDOWN DURING PUMPING:

RANGE AND AVERAGE DISCHARGE RATE:

TOTAL QUANTITY OF WATER DISCHARGED:

DISPOSITION OF DISCHARGE WATER:

MONITORING EQUIPMENT USED:

Date/ Time	Water Volume Discharged (gal)	Water Level (ft BTOC)	Temp. (°C)	pH	Conductivity (µmhos/cm)	Turbidity (NTU)	Sand (ml/L)	Remarks (color, odor, sheen, sediment, etc.)
7:30			49.7	7.80	>3999	4.85	Ø	Water is Clear
8:08			46.2	7.78	>3999	4.92	Ø	Water is Clear
8:30			49.5	7.78	>3999	3.65	Ø	water is clear
9:00			49.9	7.79	>3999	3.86	Ø	water is clear
9:30			45.3	7.72	>3999	3.66	Ø	water is clear
10:00			51.8	7.72	>3999	3.87	Ø	water is clear
10:30			45.7	7.75	>3999	3.17	Ø	water is clear
11:00			45.3	7.77	>3999	5.38	Ø	water is clear
11:30			48.2	7.82	>3999	4.71	Ø	water is clear
12:00			49.6	7.85	>3999	5.38	Ø	water is clear
12:30			49.1	7.80	>3999	3.91	Ø	water is clear
1:00			48.1	7.87	>3999	4.20	Ø	water is clear
1:30			46.5	7.80	>3999	4.91	Ø	water is clear
2:00			47.2	7.75	>3999	3.98	Ø	water is clear
2:30			46.8	7.78	>3999	3.69	Ø	water is clear
3:00			47.9	7.59	>3999	4.59	Ø	water is clear
3:30			46.9	7.80	>3999	4.38	Ø	water is clear
4:00			47.1	7.81	>3999	3.92	Ø	water is clear
4:30			48.4	7.89	>3999	3.98	Ø	water is clear
5:00			46.0	7.82	>3999	3.80	Ø	water is clear
5:30			44.7	7.79	>3999	3.18	Ø	water is clear
6:00			45.3	7.79	>3999	4.31	Ø	water is clear

WDC Wells & Exploration	PROJECT NUMBER	WELL ID	Sheet 3 of 4

WELL DEVELOPMENT LOG

PROJECT : LOCATION :

DEVELOPMENT CONTRACTOR :

DEVELOPMENT METHOD AND EQUIPMENT USED :

START WATER LEVELS : START : END : LOGGER :

CASING VOLUME: CASING DIAMETER: SCREEN INTERVAL:

MAXIMUM DRAWDOWN DURING PUMPING:

RANGE AND AVERAGE DISCHARGE RATE:

TOTAL QUANTITY OF WATER DISCHARGED:

DISPOSITION OF DISCHARGE WATER:

MONITORING EQUIPMENT USED:

Date/ Time	Water Volume Discharged (gal)	Water Level (ft BTOC)	Temp. (°C)	pH	Conductivity (µmhos/cm)	Turbidity (NTU)	Sand (ml/L)	Remarks (color, odor, sheen, sediment, etc.)
6:30			[illegible]	[illegible]	>3999	4.23	Ø	water is clear
7:00			53.6	7.69	73999	5.68	Ø	water is clear
7:30			54.4	7.73	73999	3.63	Ø	water is clear
8:00			54.8	7.74	73999	4.86	Ø	water is clear
8:30			55	7.76	73999	4.39	Ø	water is clear
8:55			52.4	7.72	73999	5.72	Ø	
9:00								shut-off Pump

Well TW-2 Zone 2 test 1440-1600

Date: 1-18-2010 Sheet 1 of 5

Time	Elapsed Time	Totalizer Meter (x ~~0~~)	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)	
		02484216		128.4	1-15-10			sounder
902		02484216		111.172	start	test		transducer
9:15	13	02485230	78				19	
9:30	17	02486409	69.3				18	
10:00	30	02488823	80.4				17	
10:30	30	02491239	80.5				17	
11:00	30	02493656	80.5				17	
11:30	30	02496173	83.9				20	
pm 12:00	30	02498478	76.8				20	
12:30	30	02500880	80.0				20	
1:00	30	02503287	80.2				20	
1:30	30	02505691	80.1				20	
2:00	30	02508109	80.6				20	
2:30	30	02510528	80.6				20	
3:00	30	02512947	80.6				20	
3:30	30	02515371	80.8				20	
4:00	30	02517800	80.9				20	
4:30	30	02520229	80.9				20	
5:00	30	02522657	80.9				20	
5:30	30	02525170	81.0				20	
6:00	29	02527521	81.0				20	
6:32	32	02530110	80.9				20	
lift range 7:00	28	02532585	88.3				20	
7:30	30	02535037	81.7				20	
8:00	30	02537445	80.2				20	
8:30	30	02539852	80.2				20	
9:00	30	02542265	80.4				20	
9:30	30	02544637	79.0				20	
10:00	30	02547017	79.3				20	
10:30	30	02549672	88.5				20	

pxd 461 50073 line=8.0579 scale=499.3099 offset=1.4277

39-026

WELL TW-2 ZONE 2 pump TEST 1440' - 1600'

Date: 01-18-10 Sheet 2 of 5

	Time	Elapsed Time	Totalizer Meter (x 0)	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)
	11:00	30	02552013	78.0				20
	11:30	30	02554621	86.9				20
01-19 2010	12:00	30	02556947	77.5				20
	12:30	30	02559561	87.1				20
	1:00	30	02561953	79.7				20
	1:30	30	02564322	80.9				20
	2:00	30	02567008	87.5				20
	2:30	30	02569332	77.4				20
	3:00	30	02571710	79.2				20
	3:30	30	02574242	84.4				20
	4:00	30	02576670	80.9				20
	4:30	30	02579118	81.6				20
	5:00	30	02581542	80.8				20
	5:30	30	02583952	80.3				20
	6:00	30	02586305	78.4				20
	6:30	30	02588746	81.3				20
shift change	7:00	30	02591163	80.5				20
	7:30	30	02593335	72.4				20
	8:00	30	02595739	80.1				20
	8:30	30	02598145	80.2				21
	9:00	30	02600536	79.7				21
	9:30	30	02602937	80.0				21
	10:00	30	02605343	80.2				20
	10:30	30	02607753	80.3				20
	11:00	30	02610169	80.5				20
	11:30	30	02612578	80.3				20
pm	12:00	30	02614985	80.2				20
	12:30	30	02617390	80.1				20
	1:01	31	02619976	83.4				20
	1:38	37	02622847	77.5				20

pxd 461 50073 line=8.0579 scale=499.3099 offset=1.4277

72 hour pump test Zone 2 1440'-1660'

Date: 1-19-2010 Sheet 3 of 5

Time	Elapsed Time	Totalizer Meter (x ~~0~~)	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)
2:15	38	02625800	79.2				20
2:35	20	02627550	84.5				20
3:06	31	02629910	76.1				20
3:30	29	02631826	66.0				20
4:00	30	02634270	81.4				20
4:30	30	02636640	79				20
5:00	30	02639320	89				20
5:30	30	02641490	71				20
6:00	30	02644059	86				20
6:30	30	02646435	79.5				20
ft rac 7:03	33	02649000	77.7				20
7:30	27	02651309	85.5				20
8:00	30	02653742	81.1				20
8:30	30	02656218	82.5				20
9:00	30	02658663	81.5				20
9:30	30	02661004	78.0				20
10:05	35	02663871	81.9				20
10:30	25	02666832	78.4				20
11:00	30	02668342	83.6				20
11:30	30	02670755	80.4				20
20 yd 12:00	30	02673152	79.9				20
12:30	30	02675698	84.8				20
1:00	30	02677973	75.8				20
1:30	30	02680391	80.6				20
2:00	30	02682796	80.1				20
2:30	30	02685177	79.3				20
3:00	30	02687589	80.4				20
3:30	30	02689912	77.4				20
4:00	30	02692281	82.3				20
4:30	30	02694726	78.1				20

'72 Pump Test Zone 2 1440'- 1660'

Date: 01-20-2010

Sheet 4 of 5

	Time	Elapsed Time	Totalizer Meter (x 0)	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)	
	5:00	30	02697267	84.7				20	
	5:30	30	02699461	73.1				20	
	6:00	30	02702074	87.1				20	
	6:30	30	02704465	79.7				20	
shift change	7:00	30	02706600	71.1				20	
	7:30	30	02709020	80.6				21	
	8:00	30	02711416	79.8				20	
	8:30	30	02713850	81.1				20	
	9:05	35	02716650	80				20	
	9:30	25	02718657	80.2				20	
	10:00	30	02721270	87.1				20	
	10:30	30	02723490	74				20	
	11:00	30	02725925	81.1				20	
	11:30	30	02728331	80.2				20	
pm	12:00	30	02730745	80.4				20	*
	12:33	33	02732601	56				20	*
	1:00	27	02735590	110.				20	
	1:32	32	02738180	80.9				20	
	2:00	28	02740420	80				20	
	2:31	31	02743000	83.2				20	
	3:00	29	02745242	77.3				20	
	3:30	30	02747644	80.0				20	
	4:00	30	02750050	80.2				20	
	4:30	30	02752454	80.1				20	
	5:00	39	02755585	80.2				20	
	5:30	21	02757350	84				20	
	6:00	30	02759673	77.4				20	
	6:30	30	02762070	79.9				20	
shift change	7:00	30	02764709	87.9				20	
	7:30	30	02767158	81.6					

offset=1.4277

scale=499.3099

pxd 461 50073 line=8.0579

02719000

M2 Pump Test Zone 2 1440'-1660'

Date: 01-20-2010 / 01-21-2010

Sheet 5 of 5

Time	Elapsed Time	Totalizer Meter (x [illegible])	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)
01-20-2010 8:00	30	02769408	75.0				20
8:35	35	02772346	83.9				20
9:00	25	02774265	76.76				20
9:30	30	02776695	81.0				20
10:00	30	02779171	82.5				20
10:30	30	02781538	78.9				20
11:00	30	02783976	81.2				20
11:30	30	02786362	79.5				20
01-21-2010 12:00	30	02788888	84.2				20
12:30	30	02791255	78.9				20
1:00	30	02793505	75.0				20
1:30	30	02796073	85.6				20
2:00	30	02798485	80.4				20
2:30	30	02800972	82.9				20
3:00	30	02803206	74.4				20
3:30	30	02805606	80.0				20
4:00	30	02808140	84.4				20
4:30	30	02810545	80.1				20
5:00	30	02812956	80.3				20
5:35	35	02815865	83.1				20
6:00	25	02817792	77.0				20
6:30	30	02820080	76.2				20
7:00	30	02822275	73.1				20
7:30	30	02824685	80.3				20
8:00	30	02827100	80.5				21
8:30	30	02829510	80.3				21
8:55	25	02831500					21
9:00		02831912		Shut-off	pump.	Final	Reading

Project Genesis Well TW 2
Pump test Zones 3 1040-1120
4 790-870

Date: 1-5-2010 Sheet 1 of 5

	Time	Elapsed Time	Totalizer Meter (x ~~0~~)	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)
start Test	7:30	~~0~~	02099887	82	132.37			25
	8:00	30	02102300	80.4				27
	8:30	30	02104820	84				27
	9:00	30	02107360	84.6				27
	9:30	30	02109880	84				26
	10:00	30	02112405	84.1				26
	10:30	30	02114980	85.8				27
	11:00	30	02117583	86.7				27
	11:30	30	02120300	90.5				27
pm	12:00	30	02122905	86.8				27
	12:40	40	02126379	86.8				27
	1:00	20	02128125	87.3				27
	1:30	30	02130730	86.8				29
	2:00	30	02133435	90.				29
	2:31	31	02136200	89.1				30
	3:00	29	02138745	87.7				30
	3:30	31	02141420	86.2				30
	4:00	30	02144130	90.3				30
	4:31	31	02146970	91.6				30
	5:00	29	02149620	91.3				30
	5:30	30	02152365	91.5				30
	6:00	30	02155100	91.1				30
	6:30	30	02157790	89.6				30
shift change	7:00	30	02160500	90.3				30
	7:30	30	02163300	93.3				30
	8:00	30	02166000	90.0				30
	8:30	30	02168600	86.6				30
	9:00	30	02171300	90.0				30
	9:30	30	02174200	96.6				30
	10:00	30	02176900	90.0				30

Sheet 2 of ~~4~~ 5

Date: 01-05-2010 & 01-06-2010

	Time	Elapsed Time	Totalizer Meter (x_____)	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)
	10:30	30	02179600	90.0				30
	11:00	30	02182400	93.3				30
	11:30	30	02185000	86.6				30
1/06/10 AM	12:00	30	02187800	93.3				30
	12:30	30	02190700	96.9				30
	1:00	30	02193300	86.6				30
	1:30	30	02196100	93.3				30
	2:00	30	02198900	93.3				30
	2:30	30	02201600	90.0				30
	3:00	30	02204300	90.0				30
	3:30	30	02207000	90.0				30
	4:00	30	02209700	90.0				30
	4:30	30	02212400	90.0				30
	5:00	30	02215100	90.0				30
	5:30	30	02218000	96.6				30
	6:00	30	02220800	93.3				30
	6:30	30	02223600	93.3				34
Shift change	7:00	30	02226000	80.0				34
	7:30	30	02228715	90.5				34
	8:00	30	02231430	90.5				33
	8:30	30	02234140	90.3				32
	9:00	30	02236845	90.1				33
	9:30	30	02239550	90.1				34
	10:00	30	02242260	90.3				34
	10:30	30	02244950	89.6				34
	11:00	30	02247670	90.6				34
	11:30	30	02250380	90.3				33
pm	12:00	30	02253185	93.5				33
	12:30	30	02255765	86				
	1:00	30	02258445	89.3				

offset=1.4277

scale=499.3099

pxd 461 50073 line=8.0579

Date: 1-6-2010

Sheet 3 of 5

Time	Elapsed Time	Totalizer Meter (x 0)	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)
1:30	32	02261350	90.7				34
2:00	28	02263770	86.4				34
2:30	30	02266447	89.2				34
3:00	30	02269150	90.1				34
3:30	30	02271855	90.1				34
4:00	30	02274540	89.5				34
4:30	30	02277185	88.1				34
5:00	30	02279819	87.8				35
5:30	30	02282450	87.7				35
6:00	30	02285175	90.8				35
6:30	32	02287830	82.9				35
shift change 7:00	28	02290263	86.8				35
7:30	30	02292910	88.2				35
8:00	34	02295945	89.2				35
8:30	26	02298242	88.3				35
9:00	30	02300721	82.6				35
9:30	30	02303426	90.1				35
10:00	30	02305981	85.1				35
10:30	30	02308591	87.0				35
11:00	30	02311046	81.8				35
11:30	30	02313691	88.1				35
1-07-10 AM 12:00	30	02316415	90.8				35
12:30	30	02319011	86.5				35
1:00	30	02321685	89.1				35
1:30	30	02324216	84.3				35
2:00	30	02326914	89.9				35
2:30	30	02329624	90.4				35
3:00	30	02332261	87.8				35
3:30	30	02334872	87.0				35
4:00	30	02337492	87.3				

offset=1.4277

scale=499.3099

pxd 461 50073 line=8.0579

Date: 01-07-2010 Sheet 4 of 5

	Time	Elapsed Time	Totalizer Meter (x ~~10~~)	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)
	4:30	30	02339913	80.7				35
	5:00	30	02342531	87.2				35
	5:30	30	02345105	85.8				35
	6:00	30	02347776	89.9				35
	6:30	30	02350373	86.5				35
shift change	7:11	41	02353750	82.3				35
	7:30	19	02355430	88.4				35
	8:00	30	02357850	80.6				35
	8:30	30	02360705	95.1				35
	9:00	30	02363480	92.5				35
	9:30	30	02366010	84.3				35
	10:00	30	02368640	87.6				35
	10:30	30	02371275	87.8				35
	11:00	30	02373825	85.0				35
	11:30	30	02376528	90.1				35
pm	12:00	30	02379118	86.3				35
	12:30	32	02381877	86.2				35
	1:00	28	02384218	83.6				35
	1:30	30	02386845	87.5				35
	2:00	30	02389428	86.1				35
	2:30	30	02392016	86.2				35
	3:00	30	02394658	88.0				35
	3:33	33	02397427	85.9				35
	4:00	27	02399765	86.5				35
	4:30	30	02402230	92.1				35
	5:00	30	02404785	85.1				35
	5:30	30	02407374	86.3				35
	6:00	30	02409962	86.26				35
	6:30	30	02412634	89.0				35
shift change	7:05	35	02415775	89.7				35

Sheet 5 of 5

Date: 01-07-10

Time	Elapsed Time	Totalizer Meter (x 0)	RATE GPM	Pumping Water Level	Drawdown	Specific Capacity	Discharge Pressure (PSI)
7:33	28	02418138	84.3				35
8:00	27	02420592	90.8				35
8:33	33	02423146	77.3				35
9:03	36	02425732	71.8				35
9:30	27	02428256	93.4				35
10:00	30	02430716	82.0				35
10:35	35	02433721	85.8				35
11:00	25	02435847	85.0				35
11:30	30	02438411	85.4				35
01-08-2010 12:00	30	02440956	84.8				35
12:30	30	02443435	82.6				35
1:00	30	02446015	86.0				35
1:30	30	02448556	84.7				35
2:00	30	02451193	87.9				35
2:30	30	02453640	81.5				35
3:00	30	02456149	83.6				35
3:30	30	02458713	85.4				35
4:00	30	02461261	84.9				35
4:30	30	02463878	87.2				35
5:00	30	02466340	82.0				35
5:30	30	02468937	86.5				35
6:00	30	02471411	82.4				35
6:30	30	02473831	80.6				36
7:00	30	02476402	85.7				36
7:34	34	02479303	85.3				36
8:15	41	02482800	85.2				36
8:31	16	02484285	92.8				
		02484216	Final Reading				

offset=1.4277

scale=499.3099

pxd 461 50073 line=8.0579

ATTACHMENT 6: LABORATORY ANALYTICAL REPORTS FOR SAMPLES COLLECTED DURING PUMPING TESTS

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 02/03/10

Job: 52004617

Anions by IC
EPA Method 300.0

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: 24hr. Zone/Retest Start					
Lab ID : WPK10020370-01A	Fluoride	5.4	0.13 mg/L	02/03/10 13:20	02/03/10 13:20
Date Sampled 02/01/10 13:40	Nitrate (NO3) - N	ND	0.25 mg/L	02/03/10 13:20	02/03/10 13:20
	Phosphate, ortho - P	ND	0.50 mg/L	02/03/10 13:20	02/03/10 13:20
	Sulfate (SO4)	490	75 mg/L	02/03/10 13:20	02/03/10 13:20
	Chloride	1,500	250 mg/L	02/03/10 13:20	02/08/10 18:44
Client ID: 24hr. Zone/Retest MID					
Lab ID : WPK10020370-02A	Fluoride	5.5	0.13 mg/L	02/03/10 13:20	02/03/10 13:38
Date Sampled 02/01/10 22:00	Nitrate (NO3) - N	ND	0.25 mg/L	02/03/10 13:20	02/03/10 13:38
	Phosphate, ortho - P	ND	0.50 mg/L	02/03/10 13:20	02/03/10 13:38
	Sulfate (SO4)	480	75 mg/L	02/03/10 13:20	02/03/10 13:38
	Chloride	1,500	250 mg/L	02/03/10 13:20	02/08/10 19:02
Client ID: 24hr. Zone/Retest END					
Lab ID : WPK10020370-03A	Fluoride	5.5	0.13 mg/L	02/03/10 13:20	02/03/10 13:57
Date Sampled 02/02/10 08:00	Nitrate (NO3) - N	ND	0.25 mg/L	02/03/10 13:20	02/03/10 13:57
	Phosphate, ortho - P	ND	0.50 mg/L	02/03/10 13:20	02/03/10 13:57
	Sulfate (SO4)	460	75 mg/L	02/03/10 13:20	02/03/10 13:57
	Chloride	1,500	250 mg/L	02/03/10 13:20	02/08/10 19:21

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (310) 803-7761 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

2/10/10
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 02/03/10

Job: 52004617

Alkalinity
SM2320B

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **24hr. Zone/Retest Start**					
Lab ID : WPK10020370-01A	Alkalinity, Bicarbonate (As CaCO3)	53	10 mg/L	02/08/10	02/08/10
Date Sampled 02/01/10 13:40	Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	02/08/10	02/08/10
	Alkalinity, Hydroxide (As CaCO3)	ND	10 mg/L	02/08/10	02/08/10
	Alkalinity, Total (As CaCO3 at pH 4.5)	53	10 mg/L	02/08/10	02/08/10
Client ID: **24hr. Zone/Retest MID**					
Lab ID : WPK10020370-02A	Alkalinity, Bicarbonate (As CaCO3)	52	10 mg/L	02/08/10	02/08/10
Date Sampled 02/01/10 22:00	Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	02/08/10	02/08/10
	Alkalinity, Hydroxide (As CaCO3)	ND	10 mg/L	02/08/10	02/08/10
	Alkalinity, Total (As CaCO3 at pH 4.5)	52	10 mg/L	02/08/10	02/08/10
Client ID: **24hr. Zone/Retest END**					
Lab ID : WPK10020370-03A	Alkalinity, Bicarbonate (As CaCO3)	48	10 mg/L	02/08/10	02/08/10
Date Sampled 02/02/10 08:00	Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	02/08/10	02/08/10
	Alkalinity, Hydroxide (As CaCO3)	ND	10 mg/L	02/08/10	02/08/10
	Alkalinity, Total (As CaCO3 at pH 4.5)	48	10 mg/L	02/08/10	02/08/10

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (310) 803-7761 / info@alpha-analytical.com

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2/10/10
Report Date

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 02/03/10

Job: 52004617

Specific Conductance at 25°C
EPA Method 120.1 / SM2510B / SW9050A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **24hr. Zone/Retest Start**				
Lab ID : WPK10020370-01A Specific Conductance (at 25°C)	5,600	10 µS/cm	02/03/10	02/03/10
Date Sampled 02/01/10 13:40				
Client ID: **24hr. Zone/Retest MID**				
Lab ID : WPK10020370-02A Specific Conductance (at 25°C)	5,600	10 µS/cm	02/03/10	02/03/10
Date Sampled 02/01/10 22:00				
Client ID: **24hr. Zone/Retest END**				
Lab ID : WPK10020370-03A Specific Conductance (at 25°C)	5,500	10 µS/cm	02/03/10	02/03/10
Date Sampled 02/02/10 08:00				

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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2/10/10
Report Date

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630
Job: 52004617

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048

Alpha Analytical Number: WPK10020370-01A
Client I.D. Number: 24hr. Zone/Retest Start

Sampled: 02/01/10
Received: 02/03/10

Method Reference : EPA Method SW6020 / SW6020A

Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Sodium (Na)	880	1.0		mg/L	02/04/10 08:59	02/12/10
Magnesium (Mg)	1.7	1.0		mg/L	02/04/10 08:59	02/12/10
Silica (SiO2)	35	1.0		mg/L	02/04/10 08:59	02/12/10
Potassium (K)	19	1.0		mg/L	02/04/10 08:59	02/12/10
Calcium (Ca)	110	1.0		mg/L	02/04/10 08:59	02/12/10
Manganese (Mn)	0.080	0.010		mg/L	02/04/10 08:59	02/12/10
Iron (Fe)	0.35	0.30		mg/L	02/04/10 08:59	02/12/10
Copper (Cu)	ND	0.010		mg/L	02/04/10 08:59	02/12/10
Zinc (Zn)	0.052	0.010		mg/L	02/04/10 08:59	02/12/10

Method Reference : SM2340B

Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Hardness, Calcium (calc as CaCO3)	280	1.2		mg/L	02/05/10 13:23	02/05/10
Hardness, Total (calc as CaCO3)	290	2.5		mg/L	02/05/10 13:23	02/05/10

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

2/16/10
Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (310) 803-7761 / info@alpha-analytical.com

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Alpha Analytical, Inc.

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630
Job: 52004617

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048

Alpha Analytical Number: WPK10020370-02A
Client I.D. Number: 24hr. Zone/Retest MID

Sampled: 02/01/10
Received: 02/03/10

Method Reference : EPA Method SW6020 / SW6020A

Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Sodium (Na)	910	1.0		mg/L	02/10/10 11:43	02/12/10
Magnesium (Mg)	2.4	1.0		mg/L	02/10/10 11:43	02/12/10
Silica (SiO2)	34	1.0		mg/L	02/10/10 11:43	02/12/10
Potassium (K)	19	1.0		mg/L	02/10/10 11:43	02/12/10
Calcium (Ca)	110	1.0		mg/L	02/10/10 11:43	02/12/10
Manganese (Mn)	0.083	0.010		mg/L	02/10/10 11:43	02/12/10
Iron (Fe)	0.40	0.30		mg/L	02/10/10 11:43	02/12/10
Copper (Cu)	ND	0.010		mg/L	02/10/10 11:43	02/12/10
Zinc (Zn)	0.055	0.010		mg/L	02/10/10 11:43	02/12/10

Method Reference : SM2340B

Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Hardness, Calcium (calc as CaCO3)	300	1.2		mg/L	02/05/10 13:23	02/05/10
Hardness, Total (calc as CaCO3)	310	2.5		mg/L	02/05/10 13:23	02/05/10

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (310) 803-7761 / info@alpha-analytical.com

2/16/10
Report Date

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630
Job: 52004617

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048

Alpha Analytical Number: WPK10020370-03A
Client I.D. Number: 24hr. Zone/Retest END

Sampled: 02/02/10
Received: 02/03/10

Method Reference : SM2340B

Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Hardness, Calcium (calc as CaCO3)	290	1.2		mg/L	02/05/10 13:23	02/05/10
Hardness, Total (calc as CaCO3)	300	2.5		mg/L	02/05/10 13:23	02/05/10

This replaces the report signed 2/16/10 due to a change in the analyte list, per client request.

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (310) 803-7761 / info@alpha-analytical.com

3/1/10
Report Date

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Alpha Analytical, Inc.

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630
Job: 52004617

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048

Alpha Analytical Number: WPK10020370-03A
Client I.D. Number: 24hr. Zone/Retest END

Sampled: 02/02/10
Received: 02/03/10

Method Reference : EPA Method SW6020 / SW6020A

Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Beryllium (Be)	ND	0.0040		mg/L	02/10/10 11:43	02/12/10
Sodium (Na)	860	1.0		mg/L	02/10/10 11:43	02/12/10
Magnesium (Mg)	1.9	1.0		mg/L	02/10/10 11:43	02/12/10
Silica (SiO2)	33	1.0		mg/L	02/10/10 11:43	02/12/10
Potassium (K)	18	1.0		mg/L	02/10/10 11:43	02/12/10
Calcium (Ca)	98	1.0		mg/L	02/10/10 11:43	02/12/10
Vanadium (V)	ND	0.0050		mg/L	02/10/10 11:43	02/12/10
Chromium (Cr)	ND	0.0050		mg/L	02/10/10 11:43	02/12/10
Manganese (Mn)	0.080	0.010		mg/L	02/10/10 11:43	02/12/10
Iron (Fe)	ND	0.30		mg/L	02/10/10 11:43	02/12/10
Cobalt (Co)	ND	0.0050		mg/L	02/10/10 11:43	02/12/10
Nickel (Ni)	ND	0.010		mg/L	02/10/10 11:43	02/12/10
Copper (Cu)	ND	0.010		mg/L	02/10/10 11:43	02/12/10
Zinc (Zn)	0.060	0.010		mg/L	02/10/10 11:43	02/12/10
Arsenic (As)	0.024	0.0050		mg/L	02/10/10 11:43	02/12/10
Selenium (Se)	ND	0.0050		mg/L	02/10/10 11:43	02/12/10
Molybdenum (Mo)	0.073	0.0050		mg/L	02/10/10 11:43	02/12/10
Silver (Ag)	ND	0.0050		mg/L	02/10/10 11:43	02/12/10
Cadmium (Cd)	ND	0.0050		mg/L	02/10/10 11:43	02/12/10
Antimony (Sb)	ND	0.0050		mg/L	02/10/10 11:43	02/12/10
Barium (Ba)	0.082	0.0050		mg/L	02/10/10 11:43	02/12/10
Mercury (Hg)	ND	0.0010		mg/L	02/10/10 11:43	02/12/10
Thallium (Tl)	ND	0.0020		mg/L	02/10/10 11:43	02/12/10
Lead (Pb)	0.013	0.0050		mg/L	02/10/10 11:43	02/12/10

This replaces the report signed 2/16/10 due to a change in the analyte list, per client request.

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

3/1/10
Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 02/03/10

Job: 52004617

Dissolved Metals by ICPMS
EPA Method SW6020 / SW6020A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **24hr. Zone/Retest Start**				
Lab ID : WPK10020370-01A Silica (SiO2), Dissolved	40	1.0 mg/L	02/05/10 13:23	02/05/10
Date Sampled 02/01/10 13:40				
Client ID: **24hr. Zone/Retest MID**				
Lab ID : WPK10020370-02A Silica (SiO2), Dissolved	40	1.0 mg/L	02/05/10 13:23	02/05/10
Date Sampled 02/01/10 22:00				
Client ID: **24hr. Zone/Retest END**				
Lab ID : WPK10020370-03A Silica (SiO2), Dissolved	40	1.0 mg/L	02/05/10 13:23	02/05/10
Date Sampled 02/02/10 08:00				

Roger Scholl Randy Gardner Walter Hinchman

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2/16/10
Report Date

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ANALYTICAL REPORT

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2330 E. Bidwell St.
Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 02/03/10

Job: 52004617

pH (Range 1.7 to 12.4)
EPA Method 150.2 / SM4500HB / SW9040C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **24hr. Zone/Retest Start**				
Lab ID : WPK10020370-01A pH	8.2	1.7 pH Units	02/03/10 15:36	02/03/10 15:36
Date Sampled 02/01/10 13:40 pH - Temperature	19	1.0 °C	02/03/10 15:36	02/03/10 15:36
Client ID: **24hr. Zone/Retest MID**				
Lab ID : WPK10020370-02A pH	8.2	1.7 pH Units	02/03/10 15:39	02/03/10 15:39
Date Sampled 02/01/10 22:00 pH - Temperature	18	1.0 °C	02/03/10 15:39	02/03/10 15:39
Client ID: **24hr. Zone/Retest END**				
Lab ID : WPK10020370-03A pH	8.2	1.7 pH Units	02/03/10 13:56	02/03/10 13:56
Date Sampled 02/02/10 08:00 pH - Temperature	18	1.0 °C	02/03/10 13:56	02/03/10 13:56

The EPA has established an analytical holding time of 15 minutes for this method as documented in the Methods Update Rule, Federal Register, Vol 72, No 47, March 2007. This holding time will always be exceeded, unless samples are analyzed in the field.
The laboratory performed this analysis in the shortest practical holding time after sample receipt.

Roger Scholl Randy Gardner Walter Hinchman

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2/10/10
Report Date

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ANALYTICAL REPORT

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Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 02/03/10

Job: 52004617

Phosphorus
EPA Method 365.3 / SM4500PE

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **24hr. Zone/Retest END**				
Lab ID : WPK10020370-03A Phosphorus, Total (As P)	ND	0.10 mg/L	02/10/10	02/10/10
Date Sampled 02/02/10 08:00				

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

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ANALYTICAL REPORT

Worley Parsons Komex
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Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 02/03/10

Job: 52004617

Sulfide
SM4500-S D

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **24hr. Zone/Retest END**				
Lab ID : WPK10020370-03A Sulfide	ND	0.10 mg/L	02/05/10	02/05/10
Date Sampled 02/02/10 08:00				

ND = Not Detected

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Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 02/03/10

Job: 52004617

Total Dissolved Solids (TDS)
SM2540C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **24hr. Zone/Retest Start**				
Lab ID : WPK10020370-01A Solids, Total Dissolved (TDS)	3,100	25 mg/L	02/09/10	02/09/10
Date Sampled 02/01/10 13:40				
Client ID: **24hr. Zone/Retest MID**				
Lab ID : WPK10020370-02A Solids, Total Dissolved (TDS)	3,100	25 mg/L	02/09/10	02/09/10
Date Sampled 02/01/10 22:00				
Client ID: **24hr. Zone/Retest END**				
Lab ID : WPK10020370-03A Solids, Total Dissolved (TDS)	3,100	25 mg/L	02/09/10	02/09/10
Date Sampled 02/02/10 08:00				

Roger Scholl Randy Gardner Walter Hinchman

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2/10/10
Report Date

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Date: *10-Feb-10*

QC Summary Report

Work Order: 10020370

Method Blank

Type **MBLK** Test Code: **EPA Method 300.0**

File ID: **22** Batch ID: **23492** Analysis Date: **02/03/2010 13:01**

Sample ID: **MB-23492** Units : **mg/L** Run ID: **IC_1_100203A** Prep Date: **02/03/2010 13:20**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	ND	0.13								
Nitrate (NO3) - N	ND	0.25								
Phosphate, ortho - P	ND	0.5								
Sulfate (SO4)	ND	0.5								
Chloride	ND	0.5								

Laboratory Fortified Blank

Type **LFB** Test Code: **EPA Method 300.0**

File ID: **45** Batch ID: **23492** Analysis Date: **02/03/2010 20:07**

Sample ID: **LFB-23492** Units : **mg/L** Run ID: **IC_1_100203A** Prep Date: **02/03/2010 13:20**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	1.17	0.13	1.25		93	90	110			
Nitrate (NO3) - N	1.32	0.25	1.25		106	90	110			
Phosphate, ortho - P	1.26	0.5	1.25		101	90	110			
Sulfate (SO4)	108	0.5	100		108	90	110			
Chloride	54.7	0.5	50		109	90	110			

Sample Matrix Spike

Type **LFM** Test Code: **EPA Method 300.0**

File ID: **29** Batch ID: **23492** Analysis Date: **02/03/2010 15:11**

Sample ID: **10020272-01ALFM** Units : **mg/L** Run ID: **IC_1_100203A** Prep Date: **02/03/2010 13:20**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	1.3	0.13	1.25	0.1313	94	80	120			
Nitrate (NO3) - N	7.4	0.25	1.25	7.973	-46	80	120			M2
Phosphate, ortho - P	1.79	0.5	1.25	0	143	80	120			M1
Sulfate (SO4)	122	0.5	100	31.21	90	80	120			
Chloride	59.4	0.5	50	5.079	109	80	120			

Sample Matrix Spike Duplicate

Type **LFMD** Test Code: **EPA Method 300.0**

File ID: **30** Batch ID: **23492** Analysis Date: **02/03/2010 15:30**

Sample ID: **10020272-01ALFMD** Units : **mg/L** Run ID: **IC_1_100203A** Prep Date: **02/03/2010 13:20**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	1.29	0.13	1.25	0.1313	93	80	120	1.302	0.6(10)	
Nitrate (NO3) - N	7.36	0.25	1.25	7.973	-49	80	120	7.401	0.5(10)	M2
Phosphate, ortho - P	1.25	0.5	1.25	0	99.6	80	120	1.786	35.7(10)	R5
Sulfate (SO4)	123	0.5	100	31.21	92	80	120	121.6	1.1(10)	
Chloride	59.4	0.5	50	5.079	109	80	120	59.44	0.0(10)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M1 = Matrix spike recovery was high, the method control sample recovery was acceptable.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.

R5 = MS/MSD RPD exceeded the laboratory control limit. Recovery met acceptance criteria.

Alpha Analytical, Inc.

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Date: *17-Feb-10*

QC Summary Report

Work Order: 10020370

Laboratory Control Spike Type **LCS** Test Code: **SM2320B**

File ID: Batch ID: **W0208ALA** Analysis Date: **02/08/2010 13:02**

Sample ID: **LCS-W0208ALA** Units : **mg/L** Run ID: **WETLAB_100208D** Prep Date: **02/08/2010 13:02**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Alkalinity, Bicarbonate (As CaCO3)	257.9	10	250		103	80	120			
Alkalinity, Carbonate (As CaCO3)	257.9	10	250		103	80	120			
Alkalinity, Hydroxide (As CaCO3)	257.9	10	250		103	80	120			
Alkalinity, Total (As CaCO3 at pH 4.5)	258	10	250		103	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

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Date: *08-Feb-10*

QC Summary Report

Work Order: 10020370

Method Blank

Type **MBLK** Test Code: **EPA Method 120.1 / SM2510B / SW9050A**

File ID: Batch ID: **W0203CN** Analysis Date: **02/03/2010 16:58**

Sample ID: **MBLK-W0203CN** Units : **µS/cm** Run ID: **WETLAB_100203D** Prep Date: **02/03/2010 16:58**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Specific Conductance (at 25°C)	ND	10								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method 120.1 / SM2510B / SW9050A**

File ID: Batch ID: **W0203CN** Analysis Date: **02/03/2010 16:41**

Sample ID: **LCS-W0203CN** Units : **µS/cm** Run ID: **WETLAB_100203D** Prep Date: **02/03/2010 16:41**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Specific Conductance (at 25°C)	1390	10	1410		99	98	102			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *16-Feb-10*

QC Summary Report

Work Order: 10020370

Method Blank

Type: **MBLK** Test Code: **SM2340B**

File ID: **020410.B\DSMB.D** Batch ID: **23528H** Analysis Date: **02/05/2010 17:23**

Sample ID: **MB-23528** Units : **mg/L** Run ID: **ICP/MS_100205F** Prep Date: **02/05/2010 13:23**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Hardness, Calcium (calc as CaCO3)	ND	1.2								
Hardness, Total (calc as CaCO3)	ND	2.5								

Laboratory Control Spike

Type: **LCS** Test Code: **SM2340B**

File ID: **020410.B\DSL1.D** Batch ID: **23528H** Analysis Date: **02/05/2010 17:29**

Sample ID: **LCS-23528** Units : **mg/L** Run ID: **ICP/MS_100205F** Prep Date: **02/05/2010 13:23**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Hardness, Calcium (calc as CaCO3)	12	1.2	12.49		96	81	115			
Hardness, Total (calc as CaCO3)	32.9	2.5	33.1		99	80	119			

Sample Matrix Spike

Type: **MS** Test Code: **SM2340B**

File ID: **020410.B\DSMS.D** Batch ID: **23528H** Analysis Date: **02/05/2010 17:51**

Sample ID: **10020370-01AMS** Units : **mg/L** Run ID: **ICP/MS_100205F** Prep Date: **02/05/2010 13:23**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Hardness, Calcium (calc as CaCO3)	290	12	12.49	280.7	72	63	135			
Hardness, Total (calc as CaCO3)	323	25	33.1	291.8	93	63	135			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **SM2340B**

File ID: **020410.B\DSMSD.D** Batch ID: **23528H** Analysis Date: **02/05/2010 17:57**

Sample ID: **10020370-01AMSD** Units : **mg/L** Run ID: **ICP/MS_100205F** Prep Date: **02/05/2010 13:23**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Hardness, Calcium (calc as CaCO3)	292	12	12.49	280.7	88	63	135	289.7	0.7(20)	
Hardness, Total (calc as CaCO3)	324	25	33.1	291.8	98	63	135	322.6	0.5(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *01-Mar-10*

QC Summary Report

Work Order: 10020370

Method Blank

Type: **MBLK** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **021110.B\564M.D** Batch ID: **23564** Analysis Date: **02/12/2010 15:30**

Sample ID: **MB-23564** Units : **mg/L** Run ID: **ICP/MS_100212B** Prep Date: **02/10/2010 11:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	0.004								
Sodium (Na)	ND	0.5								
Magnesium (Mg)	ND	0.5								
Potassium (K)	ND	0.5								
Silica (SiO2)	ND	1								
Calcium (Ca)	ND	0.5								
Vanadium (V)	ND	0.005								
Chromium (Cr)	ND	0.005								
Manganese (Mn)	ND	0.005								
Iron (Fe)	ND	0.3								
Cobalt (Co)	ND	0.005								
Nickel (Ni)	ND	0.01								
Copper (Cu)	ND	0.01								
Zinc (Zn)	ND	0.1								
Arsenic (As)	ND	0.005								
Selenium (Se)	ND	0.005								
Molybdenum (Mo)	ND	0.005								
Silver (Ag)	ND	0.005								
Cadmium (Cd)	ND	0.005								
Antimony (Sb)	ND	0.005								
Barium (Ba)	ND	0.005								
Mercury (Hg)	ND	0.001								
Thallium (Tl)	ND	0.002								
Lead (Pb)	ND	0.005								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **021110.B\564L1.D** Batch ID: **23564** Analysis Date: **02/12/2010 15:36**

Sample ID: **LCS-23564** Units : **mg/L** Run ID: **ICP/MS_100212B** Prep Date: **02/10/2010 11:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.213	0.004	0.25		85	82	126			
Sodium (Na)	46.8	0.5	50		94	80	118			
Magnesium (Mg)	47	0.5	50		94	80	119			
Potassium (K)	46.9	0.5	50		94	80	118			
Silica (SiO2)	47.3	5	50		95	80	120			
Calcium (Ca)	45.7	0.5	50		91	81	115			
Vanadium (V)	0.217	0.005	0.25		87	82	124			
Chromium (Cr)	0.215	0.005	0.25		86	80	124			
Manganese (Mn)	2.24	0.005	2.5		89	83	120			
Iron (Fe)	46.8	0.3	50		94	83	119			
Cobalt (Co)	0.223	0.005	0.25		89	80	126			
Nickel (Ni)	0.227	0.01	0.25		91	83	123			
Copper (Cu)	0.229	0.01	0.25		92	85	123			
Zinc (Zn)	0.237	0.1	0.25		95	82	123			
Arsenic (As)	0.23	0.005	0.25		92	85	118			
Selenium (Se)	0.234	0.005	0.25		93	85	118			
Molybdenum (Mo)	0.231	0.005	0.25		93	85	119			
Silver (Ag)	0.23	0.005	0.25		92	79	118			
Cadmium (Cd)	0.239	0.005	0.25		96	85	121			
Antimony (Sb)	0.231	0.005	0.25		92	80	116			
Barium (Ba)	2.42	0.005	2.5		97	85	132			
Mercury (Hg)	0.00519	0.001	0.005		104	70	122			
Thallium (Tl)	0.225	0.002	0.25		90	77	119			
Lead (Pb)	0.238	0.005	0.25		95	85	120			

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *01-Mar-10*

QC Summary Report

Work Order: 10020370

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **021110.B\564MS.D** Batch ID: **23564** Analysis Date: **02/12/2010 15:59**

Sample ID: **10020970-01AMS** Units : **mg/L** Run ID: **ICP/MS_100212B** Prep Date: **02/10/2010 11:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.218	0.004	0.25	0	87	70	133			
Sodium (Na)	458	0.5	50	454.9	5.6	61	135			M3
Magnesium (Mg)	158	0.5	50	131.3	53	67	134			M2
Potassium (K)	51	0.5	50	9.432	83	70	133			
Silica (SiO2)	68.7	5	50	27.21	83	70	130			
Calcium (Ca)	231	0.5	50	205.2	51	63	135			M3
Vanadium (V)	0.198	0.005	0.25	0	79	70	134			
Chromium (Cr)	0.188	0.005	0.25	0	75	70	133			
Manganese (Mn)	4.33	0.005	2.5	2.51	73	70	130			
Iron (Fe)	44.2	0.3	50	2.118	84	70	130			
Cobalt (Co)	0.203	0.005	0.25	0	81	70	132			
Nickel (Ni)	0.22	0.01	0.25	0.01751	81	70	132			
Copper (Cu)	0.216	0.01	0.25	0	86	70	131			
Zinc (Zn)	0.235	0.1	0.25	0	94	65	143			
Arsenic (As)	0.231	0.005	0.25	0	93	70	130			
Selenium (Se)	0.227	0.005	0.25	0.005501	88	70	131			
Molybdenum (Mo)	0.238	0.005	0.25	0	95	65	140			
Silver (Ag)	0.219	0.005	0.25	0	88	70	130			
Cadmium (Cd)	0.236	0.005	0.25	0	94	70	130			
Antimony (Sb)	0.247	0.005	0.25	0	99	70	130			
Barium (Ba)	2.78	0.005	2.5	0.2124	103	70	143			
Mercury (Hg)	0.00537	0.001	0.005	0	107	68	130			
Thallium (Tl)	0.226	0.002	0.25	0.002385	90	70	130			
Lead (Pb)	0.235	0.005	0.25	0	94	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **021110.B\564MSD.D** Batch ID: **23564** Analysis Date: **02/12/2010 16:04**

Sample ID: **10020970-01AMSD** Units : **mg/L** Run ID: **ICP/MS_100212B** Prep Date: **02/10/2010 11:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.225	0.004	0.25	0	90	70	133	0.2181	3.2(20)	
Sodium (Na)	492	0.5	50	454.9	75	61	135	457.7	7.3(20)	
Magnesium (Mg)	173	0.5	50	131.3	83	67	134	157.9	9.0(20)	
Potassium (K)	55.2	0.5	50	9.432	92	70	133	50.99	7.9(20)	
Silica (SiO2)	72.5	5	50	27.21	91	70	130	68.66	5.5(20)	
Calcium (Ca)	252	0.5	50	205.2	94	63	135	230.8	8.9(20)	
Vanadium (V)	0.209	0.005	0.25	0	84	70	134	0.1981	5.5(20)	
Chromium (Cr)	0.199	0.005	0.25	0	79	70	133	0.1877	5.7(20)	
Manganese (Mn)	4.55	0.005	2.5	2.51	82	70	130	4.331	4.9(20)	
Iron (Fe)	47.8	0.3	50	2.118	91	70	130	44.24	7.7(20)	
Cobalt (Co)	0.215	0.005	0.25	0	86	70	132	0.2025	6.0(20)	
Nickel (Ni)	0.234	0.01	0.25	0.01751	87	70	132	0.2198	6.3(20)	
Copper (Cu)	0.229	0.01	0.25	0	91	70	131	0.2156	5.8(20)	
Zinc (Zn)	0.245	0.1	0.25	0	98	65	143	0.2346	4.4(20)	
Arsenic (As)	0.244	0.005	0.25	0	97	70	130	0.2313	5.2(20)	
Selenium (Se)	0.236	0.005	0.25	0.005501	92	70	131	0.2265	4.3(20)	
Molybdenum (Mo)	0.255	0.005	0.25	0	102	65	140	0.2378	7.1(20)	
Silver (Ag)	0.236	0.005	0.25	0	94	70	130	0.2194	7.4(20)	
Cadmium (Cd)	0.25	0.005	0.25	0	100	70	130	0.236	5.8(20)	
Antimony (Sb)	0.26	0.005	0.25	0	104	70	130	0.2472	5.2(20)	
Barium (Ba)	2.95	0.005	2.5	0.2124	109	70	143	2.778	5.9(20)	
Mercury (Hg)	0.00551	0.001	0.005	0	110	68	130	0.005371	2.5(20)	
Thallium (Tl)	0.245	0.002	0.25	0.002385	97	70	130	0.2264	8.1(20)	
Lead (Pb)	0.245	0.005	0.25	0	98	70	130	0.2349	4.3(20)	

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *01-Mar-10*

QC Summary Report

Work Order: 10020370

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.

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Date: *16-Feb-10*

QC Summary Report

Work Order: 10020370

Method Blank

Type: **MBLK** Test Code: **EPA Method SW6020 / SW6020A**
File ID: **020410.B\DSMB.D** Batch ID: **23528** Analysis Date: **02/05/2010 17:23**
Sample ID: **MB-23528** Units : **mg/L** Run ID: **ICP/MS_100205E** Prep Date: **02/05/2010 13:23**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	ND	1								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW6020 / SW6020A**
File ID: **020410.B\DSL1.D** Batch ID: **23528** Analysis Date: **02/05/2010 17:29**
Sample ID: **LCS-23528** Units : **mg/L** Run ID: **ICP/MS_100205E** Prep Date: **02/05/2010 13:23**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	5.14	1	5		103	76	120			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW6020 / SW6020A**
File ID: **020410.B\DSMS.D** Batch ID: **23528** Analysis Date: **02/05/2010 17:51**
Sample ID: **10020370-01AMS** Units : **mg/L** Run ID: **ICP/MS_100205E** Prep Date: **02/05/2010 13:23**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	44.3	10	5	40.11	83	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW6020 / SW6020A**
File ID: **020410.B\DSMSD.D** Batch ID: **23528** Analysis Date: **02/05/2010 17:57**
Sample ID: **10020370-01AMSD** Units : **mg/L** Run ID: **ICP/MS_100205E** Prep Date: **02/05/2010 13:23**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	43.4	10	5	40.11	65	70	130	44.28	2.1(20)	M3

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.

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Date: *08-Feb-10*

QC Summary Report

Work Order: 10020370

Laboratory Control Spike Type **LCS** Test Code: **EPA Method 150.2 / SM4500HB / SW9040C**

File ID: Batch ID: **W0203PH** Analysis Date: **02/03/2010 15:32**

Sample ID: **LCS-W0203PH** Units : **pH Units** Run ID: **WETLAB_100203E** Prep Date: **02/03/2010 15:32**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
pH	5.08	1.7	5		102	90	110			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *16-Feb-10*

QC Summary Report

Work Order: 10020370

Method Blank

Type: **MBLK** Test Code: **EPA Method 365.3 / SM4500PE**

File ID:
Batch ID: **W0210TP** Analysis Date: **02/10/2010 00:00**
Sample ID: **MBLK-W0210TP** Units : **mg/L** Run ID: **WETLAB_100210A** Prep Date: **02/10/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	ND	0.1								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method 365.3 / SM4500PE**

File ID:
Batch ID: **W0210TP** Analysis Date: **02/10/2010 00:00**
Sample ID: **LCS-W0210TP** Units : **mg/L** Run ID: **WETLAB_100210A** Prep Date: **02/10/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	0.918	0.1	1		92	73	127			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method 365.3 / SM4500PE**

File ID:
Batch ID: **W0210TP** Analysis Date: **02/10/2010 00:00**
Sample ID: **10020370-03AMS** Units : **mg/L** Run ID: **WETLAB_100210A** Prep Date: **02/10/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	1.03	0.1	1	0	103	73	127			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method 365.3 / SM4500PE**

File ID:
Batch ID: **W0210TP** Analysis Date: **02/10/2010 00:00**
Sample ID: **10020370-03AMSD** Units : **mg/L** Run ID: **WETLAB_100210A** Prep Date: **02/10/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	0.996	0.1	1	0	99.6	73	127	1.031	3.5(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

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Date: *10-Feb-10*

QC Summary Report

Work Order: 10020370

Method Blank

Type: **MBLK** Test Code: **SM4500-S D**
File ID:
Batch ID: **W0205SU** Analysis Date: **02/05/2010 00:00**
Sample ID: **MBLK-W0205SU** Units : **mg/L** Run ID: **WETLAB_100205D** Prep Date: **02/05/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	ND	0.1								

Laboratory Control Spike

Type: **LCS** Test Code: **SM4500-S D**
File ID:
Batch ID: **W0205SU** Analysis Date: **02/05/2010 00:00**
Sample ID: **LCS-W0205SU** Units : **mg/L** Run ID: **WETLAB_100205D** Prep Date: **02/05/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	1.28	0.1	1		128	75	130			

Sample Matrix Spike

Type: **MS** Test Code: **SM4500-S D**
File ID:
Batch ID: **W0205SU** Analysis Date: **02/05/2010 00:00**
Sample ID: **10020370-03AMS** Units : **mg/L** Run ID: **WETLAB_100205D** Prep Date: **02/05/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	1.26	0.1	1	0	126	65	150			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **SM4500-S D**
File ID:
Batch ID: **W0205SU** Analysis Date: **02/05/2010 00:00**
Sample ID: **10020370-03AMSD** Units : **mg/L** Run ID: **WETLAB_100205D** Prep Date: **02/05/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	1.36	0.1	1	0	136	65	150	1.263	7.3(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *16-Feb-10*

QC Summary Report

Work Order: 10020370

Method Blank

File ID: | Type: **MBLK** | Test Code: **SM2540C**

Sample ID: **MBLK-W0204DS** | Units : **mg/L** | Batch ID: **W0204DS** | Run ID: **WETLAB_100204F** | Analysis Date: **02/09/2010 00:00** | Prep Date: **02/09/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Solids, Total Dissolved (TDS)	ND	10								

Laboratory Control Spike

File ID: | Type: **LCS** | Test Code: **SM2540C**

Sample ID: **LCS-W0204DS** | Units : **mg/L** | Batch ID: **W0204DS** | Run ID: **WETLAB_100204F** | Analysis Date: **02/09/2010 00:00** | Prep Date: **02/09/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Solids, Total Dissolved (TDS)	80	10	100		80	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
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ANALYTICAL SUMMARY REPORT

February 18, 2010

Alpha Analytical Inc
255 Glendale Ave Ste 21
Sparks, NV 89431

Workorder No.: C10020192

Project Name: WPK10020370

Energy Laboratories, Inc. received the following 1 sample for Alpha Analytical Inc on 2/4/2010 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C10020192-001	24hr Zone/Retest END	02/02/10 8:00	02/04/10	Aqueous	Gross Alpha, Gross Beta

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By: Stephanie D. Waldrop

Stephanie D. Waldrop
Reporting Supervisor

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LABORATORY ANALYTICAL REPORT

Client: Alpha Analytical Inc
Project: WPK10020370
Lab ID: C10020192-001
Client Sample ID: 24hr Zone/Retest END

Report Date: 02/18/10
Collection Date: 02/02/10 08:00
DateReceived: 02/04/10
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Gross Alpha	15.4	pCi/L	U			E900.0	02/15/10 21:47 / cgr
Gross Alpha precision (±)	13.7	pCi/L				E900.0	02/15/10 21:47 / cgr
Gross Alpha MDC	21.4	pCi/L				E900.0	02/15/10 21:47 / cgr

- Method E900.0 is equivalent to SW9310.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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QA/QC Summary Report

Client: Alpha Analytical Inc
Project: WPK10020370

Report Date: 02/18/10
Work Order: C10020192

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0									**Batch: GrAB-0835**
Sample ID: MB-GrAB-0835	Method Blank				Run: G5000W_100210A			02/14/10 01:54	
Gross Alpha	-1	pCi/L							U
Gross Alpha precision (±)	0.6	pCi/L							
Gross Alpha MDC	0.8	pCi/L							
Sample ID: Th230-GrAB-0835	Laboratory Control Sample				Run: G5000W_100210A			02/14/10 01:54	
Gross Alpha	100	pCi/L		104	70	130			
Sample ID: C10010629-003DDUP	Sample Duplicate				Run: G5000W_100210A			02/14/10 01:54	
Gross Alpha	30.4	pCi/L					12	35.9	
Gross Alpha precision (±)	4.12	pCi/L							
Gross Alpha MDC	4.21	pCi/L							
Sample ID: C10010629-008DMS	Sample Matrix Spike				Run: G5000W_100210A			02/14/10 01:55	
Gross Alpha	79.5	pCi/L		75	70	130			
Sample ID: C10010629-008DMSD	Sample Matrix Spike Duplicate				Run: G5000W_100210A			02/14/10 01:55	
Gross Alpha	101	pCi/L		96	70	130	24	23.5	R

- The RPD for the MSD is high. The individual spike recoveries are within range, the MB is acceptable, and the LCS is within range, therefore the batch is approved.

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.
R - RPD exceeds advisory limit.

AMENDED

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10020370

Report Due By : 5:00 PM On : 10-Feb-2010

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com

EDD Required : No

Sampled by : Terence Robertson

PO :

Client's COC # : 30746 Job : 52004617

Cooler Temp	Samples Received	Date Printed
4 °C	03-Feb-2010	01-Mar-2010

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	300_0_W	ALKALINITY_W	CONDUCTIVITY	G_ALPHABETA_W	HARDNESS_W	METALS_AQ	METALS_DS	PH_W	Sample Remarks
WPK10020370-01A	24hr. Zone/Retest Start	AQ	02/01/10 13:40	5	0	5	CA	CA	CA		CA	CA	SiO2	CA	
WPK10020370-02A	24hr. Zone/Retest MID	AQ	02/01/10 22:00	5	0	5	CA	CA	CA		CA	CA	SiO2	CA	
WPK10020370-03A	24hr. Zone/Retest END	AQ	02/02/10 08:00	9	4	5	CA	CA	CA	Gross Alpha	CA	CAM 17 TTLC	SiO2	CA	

Comments: Security seal intact. Frozen Ice. No TAT provided, therefore logged in on std. TAT, until otherwise from client. Gross Alpha subbed to Energy Labs. Gross Alpha polys rec'd in non-preserved, polys preserved w/ HNO3 in lab. Gross Alpha put on std.10-day. : Amended 3/1/10 @ 10:32: Per Ed via Reyna added CAM 17 to sample -03A. EA

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Adcox	Elizabeth Adcox	Alpha Analytical, Inc.	3-1-10 1034

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA AMENDED

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10020370

Report Due By : 5:00 PM On : 10-Feb-2010

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number		EMail Address
Ed Baquerizo	(916) 627-0048	x	ed.baquerizo@worleyparsons.com
Terence Robertson	(916) 817-3963	x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931	x	mike.tietze@worleyparsons.com

EDD Required : No

Sampled by : Terence Robertson

PO :

Client's COC # : 30746 Job : 52004617

Cooler Temp	Samples Received	Date Printed
4 °C	03-Feb-2010	01-Mar-2010

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	PHOSPHORUS_W	SULFIDE_W	TDS_W			Sample Remarks
							Requested Tests					
WPK10020370-01A	24hr. Zone/Retest Start	AQ	02/01/10 13:40	5	0	5			CA			
WPK10020370-02A	24hr. Zone/Retest MID	AQ	02/01/10 22:00	5	0	5			CA			
WPK10020370-03A	24hr. Zone/Retest END	AQ	02/02/10 08:00	9	4	5	Total	Sulfide	CA			

Comments: Security seal intact. Frozen Ice. No TAT provided, therefore logged in on std. TAT, until otherwise from client. Gross Alpha subbed to Energy Labs. Gross Alpha polys rec'd in non-preserved, polys preserved w/ HNO3 in lab. Gross Alpha put on std.10-day. ; Amended 3/1/10 @ 10:32: Per Ed via Reyna added CAM 17 to sample -03A. EA

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Adcox	Elizabeth Adcox	Alpha Analytical, Inc.	3-1-10 1034

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10020370

Report Due By : 5:00 PM On : 10-Feb-10

Gross Alpha due 2/12/10

EDD Required : **No**

Sampled by : Terence Robertson

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com

PO :

Client's COC # : 30746 Job : 52004617

Cooler Temp	Samples Received	Date Printed
4 °C	03-Feb-10	03-Feb-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	300_0_W	ALKALINITY_W	CONDUCTIVITY	G_ALPHABETA_W	HARDNESS_W	METALS_AQ	METALS_DS	PH_W	Sample Remarks
WPK10020370-01A	24hr. Zone/Retest Start	AQ	02/01/10 13:40	5	0	5	CA	CA	CA		CA	CA	SiO2	CA	
WPK10020370-02A	24hr. Zone/Retest MID	AQ	02/01/10 22:00	5	0	5	CA	CA	CA		CA	CA	SiO2	CA	
WPK10020370-03A	24hr. Zone/Retest END	AQ	02/02/10 08:00	9	4	5	CA	CA	CA	X	CA	CA	SiO2	CA	

Comments: Security seal intact. Frozen Ice. No TAT provided, therefore logged in on std. TAT, until otherwise from client. Gross Alpha subbed to Energy Labs. Gross Alpha polys rec'd in non-preserved, polys preserved w/ HNO3 in lab. Gross Alpha put on std.10-day. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Reyna Vallejo	Reyna Vallejo	Alpha Analytical, Inc.	2/3/10 11:15

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
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Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

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255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10020370

Report Due By : 5:00 PM On : 10-Feb-10

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com

EDD Required : **No**

Sampled by : Terence Robertson

PO :

Client's COC # : 30746 Job : 52004617

Cooler Temp	Samples Received	Date Printed
4 °C	03-Feb-10	03-Feb-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	PHOSPHORUS_W	SULFIDE_W	TDS						Sample Remarks
							Requested Tests								
WPK10020370-01A	24hr. Zone/Retest Start	AQ	02/01/10 13:40	5	0	5			CA						
WPK10020370-02A	24hr. Zone/Retest MID	AQ	02/01/10 22:00	5	0	5			CA						
WPK10020370-03A	24hr. Zone/Retest END	AQ	02/02/10 08:00	9	4	5	Total	Sulfide	CA						

Comments: Security seal intact. Frozen Ice. No TAT provided, therefore logged in on std. TAT, until otherwise from client. Gross Alpha subbed to Energy Labs. Gross Alpha polys rec'd in non-preserved, polys preserved w/ HNO3 in lab. Gross Alpha put on std.10-day. :

	Signature	Print Name	Company	Date/Time
Logged in by:			Alpha Analytical, Inc.	

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Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

30746

Billing Information:
Company Name WORLEY PARSONS
Attn: MIKE TIETZE
Address 2330 E. Bidwell ST #150
City, State, Zip Folsom CA 95630
Phone Number 916 817-3920 Fax 916 983 1935

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ____ CA X NV ____ WA ____ DOD Site ____
ID ____ OR ____ OTHER ____ Page # ____ of ____

Consultant / Client Name
Address
City, State, Zip
Job # 52004617
Job Name
Report Attention / Project Manager
Name: Ed Baquerizo
Email: Ed.Baquerizo@worleyparsons.com
Phone: 916-817-3970 Mobile: 916 627-0048

Data Validation Level: III or IV
EDD / EDF? YES ____ NO ____
Global ID # ____

Time Sampled	Date Sampled	Matrix* See Key Below	P.O. # / Lab ID Number (Office Use Only)	Sample Description	TAT	Field Filtered	# Containers**	GEN MINERALS	ANIONS & CATIONS	REACTIVE SILICAL	TDS	GROSS ALPHA	Sulfide	Total Phosphate	REMARKS
1:40PM	2/1	AQ	WPK 100[illegible]70-01	24HR ZONE 1 RETEST START		Y	5	X	X	X	X				Include for
10:00PM	2/1	AQ	[illegible]-02	24HR ZONE 1 RETEST MID		Y	5	X	X	X	X				Calcium
8:00AM	2/2	AQ	-03	24HR ZONE 1 RETEST END		Y	13	X	X	X	X	X	X	X	Hardness for
															All sample
															Bottles.

ADDITIONAL INSTRUCTIONS:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action (NAC 445.0636 (c) (2)). Sampled By: TERENCE ROBERTSON

Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	Date:	Time:
TERENCE ROBERTSON		2-2-10	12:10 PM
	[signature]	2/2/10	11:15

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Terence Robertson
Phone: (916) 817-3963
Fax: (916) 983-1935
Date Received : 01/22/10

Job: 52004617-Blythe/Genesis

Anions by IC
EPA Method 300.0

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-21-10 Zone2 End**					
Lab ID : WPK10012243-01A	Fluoride	5.2	0.13 mg/L	01/22/10 12:43	01/22/10 14:43
Date Sampled 01/21/10 08:15	Nitrate (NO3) - N	ND	0.25 mg/L	01/22/10 12:43	01/22/10 14:43
	Phosphate, ortho - P	ND	0.50 mg/L	01/22/10 12:43	01/22/10 14:43
	Sulfate (SO4)	500	25 mg/L	01/22/10 12:43	01/22/10 15:01
	Chloride	1,500	25 mg/L	01/22/10 12:43	01/22/10 15:01

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (310) 803-7761 / info@alpha-analytical.com
Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.
Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

2/4/10
Report Date

Alpha Analytical, Inc.

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ANALYTICAL REPORT

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Folsom, CA 95630

Attn: Terence Robertson
Phone: (916) 817-3963
Fax: (916) 983-1935
Date Received : 01/22/10

Job: 52004617-Blythe/Genesis

Alkalinity
SM2320B

Parameter		Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-21-10 Zone2 End**					
Lab ID : WPK10012243-01A	Alkalinity, Bicarbonate (As CaCO3)	58	10 mg/L	01/28/10	01/28/10
Date Sampled 01/21/10 08:15	Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	01/28/10	01/28/10
	Alkalinity, Hydroxide (As CaCO3)	ND	10 mg/L	01/28/10	01/28/10
	Alkalinity, Total (As CaCO3 at pH 4.5)	58	10 mg/L	01/28/10	01/28/10

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

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ANALYTICAL REPORT

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Folsom, CA 95630

Attn: Terence Robertson
Phone: (916) 817-3963
Fax: (916) 983-1935
Date Received : 01/22/10

Job: 52004617-Blythe/Genesis

Specific Conductance at 25°C
EPA Method 120.1 / SM2510B / SW9050A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-21-10 Zone2 End**				
Lab ID : WPK10012243-01A Specific Conductance (at 25°C)	5,400	10 µS/cm	01/25/10	01/25/10
Date Sampled 01/21/10 08:15				

Roger Scholl Randy Gardner Walter Hinchman

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ANALYTICAL REPORT

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Folsom, CA 95630

Attn: Terence Robertson
Phone: (916) 817-3963
Fax: (916) 983-1935
Date Received : 01/22/10

Job: 52004617-Blythe/Genesis

Hardness
SM2340B

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-21-10 Zone2 End**				
Lab ID : WPK10012243-01A Hardness, Calcium (calc as CaCO3)	310	2.5 mg/L	01/25/10 12:19	01/27/10
Date Sampled 01/21/10 08:15 Hardness, Total (calc as CaCO3)	320	2.5 mg/L	01/25/10 12:19	01/27/10

Roger Scholl Randy Gardner Walter Hinchman

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2/4/10
Report Date

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Terence Robertson
Phone: (916) 817-3963
Fax: (916) 983-1935
Date Received : 01/22/10

Job: 52004617-Blythe/Genesis

Metals by ICPMS
EPA Method SW6020 / SW6020A

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-21-10 Zone2 End**					
Lab ID : WPK10012243-01A	Beryllium (Be)	ND	0.0040 mg/L	01/25/10 12:19	01/27/10
Date Sampled 01/21/10 08:15	Sodium (Na)	1,000	1.0 mg/L	01/25/10 12:19	01/27/10
	Magnesium (Mg)	3.4	1.0 mg/L	01/25/10 12:19	01/27/10
	Potassium (K)	21	1.0 mg/L	01/25/10 12:19	01/27/10
	Silica (SiO2)	37	1.0 mg/L	01/25/10 12:19	01/27/10
	Calcium (Ca)	120	1.0 mg/L	01/25/10 12:19	01/27/10
	Vanadium (V)	ND	0.0050 mg/L	01/25/10 12:19	01/27/10
	Chromium (Cr)	ND	0.0050 mg/L	01/25/10 12:19	01/27/10
	Manganese (Mn)	0.093	0.010 mg/L	01/25/10 12:19	01/27/10
	Iron (Fe)	0.73	0.60 mg/L	01/25/10 12:19	01/27/10
	Cobalt (Co)	ND	0.0050 mg/L	01/25/10 12:19	01/27/10
	Nickel (Ni)	ND	0.010 mg/L	01/25/10 12:19	01/27/10
	Copper (Cu)	ND	0.020 mg/L	01/25/10 12:19	01/27/10
	Zinc (Zn)	ND	0.20 mg/L	01/25/10 12:19	01/27/10
	Arsenic (As)	0.022	0.0050 mg/L	01/25/10 12:19	01/27/10
	Selenium (Se)	ND	0.0050 mg/L	01/25/10 12:19	01/27/10
	Molybdenum (Mo)	0.085	0.0050 mg/L	01/25/10 12:19	01/27/10
	Silver (Ag)	ND	0.0050 mg/L	01/25/10 12:19	01/27/10
	Cadmium (Cd)	ND	0.0050 mg/L	01/25/10 12:19	01/27/10
	Antimony (Sb)	ND	0.0050 mg/L	01/25/10 12:19	01/27/10
	Barium (Ba)	0.067	0.0050 mg/L	01/25/10 12:19	01/27/10
	Mercury (Hg)	ND	0.0010 mg/L	01/25/10 12:19	01/27/10
	Thallium (Tl)	ND	0.0020 mg/L	01/25/10 12:19	01/27/10
	Lead (Pb)	ND	0.0050 mg/L	01/25/10 12:19	01/27/10

This replaces the report signed 2/4/10 due to a change in the analyte list, per client request.

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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3/4/10
Report Date

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Terence Robertson
Phone: (916) 817-3963
Fax: (916) 983-1935
Date Received : 01/22/10

Job: 52004617-Blythe/Genesis

Dissolved Metals by ICPMS
EPA Method SW6020 / SW6020A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-21-10 Zone2 End**				
Lab ID : WPK10012243-01A Silica (SiO2), Dissolved	40	1.0 mg/L	01/22/10 11:01	01/25/10
Date Sampled 01/21/10 08:15				

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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2/4/10
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Terence Robertson
Phone: (916) 817-3963
Fax: (916) 983-1935
Date Received : 01/22/10

Job: 52004617-Blythe/Genesis

pH (Range 1.7 to 12.4)
EPA Method 150.2 / SM4500HB / SW9040C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-21-10 Zone2 End**				
Lab ID : WPK10012243-01A pH	8.0	1.7 pH Units	01/22/10 14:19	01/22/10 14:19
Date Sampled 01/21/10 08:15 pH - Temperature	23	1.0 °C	01/22/10 14:19	01/22/10 14:19

The EPA has established an analytical holding time of 15 minutes for this method as documented in the Methods Update Rule, Federal Register, Vol 72, No 47, March 2007. This holding time will always be exceeded, unless samples are analyzed in the field.
The laboratory performed this analysis in the shortest practical holding time after sample receipt.

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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2/4/10
Report Date

Alpha Analytical, Inc.

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ANALYTICAL REPORT

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2330 E. Bidwell St.
Folsom, CA 95630

Attn: Terence Robertson
Phone: (916) 817-3963
Fax: (916) 983-1935
Date Received : 01/22/10

Job: 52004617-Blythe/Genesis

Phosphorus
EPA Method 365.3 / SM4500PE

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-21-10 Zone2 End**				
Lab ID : WPK10012243-01A Phosphorus, Total (As P)	ND	0.10 mg/L	01/26/10	01/26/10
Date Sampled 01/21/10 08:15				

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (310) 803-7761 / info@alpha-analytical.com
Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.
Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

2/4/10
Report Date

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Terence Robertson
Phone: (916) 817-3963
Fax: (916) 983-1935
Date Received : 01/22/10

Job: 52004617-Blythe/Genesis

Sulfide
SM4500-S D

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-21-10 Zone2 End**				
Lab ID : WPK10012243-01A Sulfide	ND	0.10 mg/L	01/28/10	01/28/10
Date Sampled 01/21/10 08:15				

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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Report Date

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Terence Robertson
Phone: (916) 817-3963
Fax: (916) 983-1935
Date Received : 01/22/10

Job: 52004617-Blythe/Genesis

Total Dissolved Solids (TDS)
SM2540C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-21-10 Zone2 End**				
Lab ID : WPK10012243-01A Solids, Total Dissolved (TDS)	3,100	25 mg/L	01/28/10	01/28/10
Date Sampled 01/21/10 08:15				

Roger Scholl Randy Gardner Walter Hinchman

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2/4/10
Report Date

Alpha Analytical, Inc.

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Date: *04-Feb-10*

QC Summary Report

Work Order: 10012243

Method Blank

Type **MBLK** Test Code: **EPA Method 300.0**

File ID: **20** Batch ID: **23422** Analysis Date: **01/22/2010 12:15**

Sample ID: **MB-23422** Units : **mg/L** Run ID: **IC_1_100122A** Prep Date: **01/22/2010 12:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	ND	0.13								
Nitrate (NO3) - N	ND	0.25								
Phosphate, ortho - P	ND	0.5								
Sulfate (SO4)	ND	0.5								
Chloride	ND	0.5								

Laboratory Fortified Blank

Type **LFB** Test Code: **EPA Method 300.0**

File ID: **21** Batch ID: **23422** Analysis Date: **01/22/2010 12:33**

Sample ID: **LFB-23422** Units : **mg/L** Run ID: **IC_1_100122A** Prep Date: **01/22/2010 12:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	1.16	0.13	1.25		93	90	110			
Nitrate (NO3) - N	1.34	0.25	1.25		107	90	110			
Phosphate, ortho - P	0.833	0.5	1.25		67	90	110			L50
Sulfate (SO4)	105	0.5	10		1050	90	110			L51
Chloride	53.2	0.5	5		1060	90	110			L51

Sample Matrix Spike

Type **LFM** Test Code: **EPA Method 300.0**

File ID: **32** Batch ID: **23422** Analysis Date: **01/22/2010 15:57**

Sample ID: **10012220-05ALFM** Units : **mg/L** Run ID: **IC_1_100122A** Prep Date: **01/22/2010 12:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	5.81	0.13	6.25	1.483	69	80	120			M2
Nitrate (NO3) - N	6.75	0.25	6.25	0.325	103	80	120			
Phosphate, ortho - P	4.24	0.5	6.25	0	68	80	120			M2
Sulfate (SO4)	786	0.5	500	218.5	114	80	120			
Chloride	339	0.5	250	57.31	113	80	120			

Sample Matrix Spike Duplicate

Type **LFMD** Test Code: **EPA Method 300.0**

File ID: **33** Batch ID: **23422** Analysis Date: **01/22/2010 16:15**

Sample ID: **10012220-05ALFMD** Units : **mg/L** Run ID: **IC_1_100122A** Prep Date: **01/22/2010 12:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	6.51	0.13	6.25	1.483	81	80	120	5.814	11.4(10)	R5
Nitrate (NO3) - N	6.32	0.25	6.25	0.325	96	80	120	6.754	6.7(10)	
Phosphate, ortho - P	4.81	0.5	6.25	0	77	80	120	4.241	12.7(10)	M2 R5
Sulfate (SO4)	786	0.5	500	218.5	113	80	120	786.3	0.1(10)	
Chloride	343	0.5	250	57.31	114	80	120	338.8	1.2(10)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

L50 = Analyte recovery was below acceptance limits for the LCS, but was acceptable in the MS/MSD.

L51 = Analyte recovery was above acceptance limits for the LCS, but was acceptable in the MS/MSD.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.

R5 = MS/MSD RPD exceeded the laboratory control limit. Recovery met acceptance criteria.

Alpha Analytical, Inc.

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Date: *04-Feb-10*

QC Summary Report

Work Order: 10012243

Laboratory Control Spike Type **LCS** Test Code: **SM2320B**

File ID: Batch ID: **W0128AL** Analysis Date: **01/28/2010 14:59**

Sample ID: **LCS-W0128AL** Units : **mg/L** Run ID: **WETLAB_100128i** Prep Date: **01/28/2010 14:59**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Alkalinity, Bicarbonate (As CaCO3)	245.1	10	250		98	80	120			
Alkalinity, Carbonate (As CaCO3)	245.1	10	250		98	80	120			
Alkalinity, Hydroxide (As CaCO3)	245.1	10	250		98	80	120			
Alkalinity, Total (As CaCO3 at pH 4.5)	245	10	250		98	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *04-Feb-10*

QC Summary Report

Work Order: 10012243

Method Blank

Type **MBLK** Test Code: **EPA Method 120.1 / SM2510B / SW9050A**

File ID: Batch ID: **W0125CN** Analysis Date: **01/25/2010 10:14**

Sample ID: **MBLK-W0125CN** Units : **µS/cm** Run ID: **WETLAB_100125B** Prep Date: **01/25/2010 10:14**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Specific Conductance (at 25°C)	ND	10								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method 120.1 / SM2510B / SW9050A**

File ID: Batch ID: **W0125CN** Analysis Date: **01/25/2010 10:13**

Sample ID: **LCS-W0125CN** Units : **µS/cm** Run ID: **WETLAB_100125B** Prep Date: **01/25/2010 10:13**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Specific Conductance (at 25°C)	1380	10	1410		98	98	102			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *04-Feb-10*

QC Summary Report

Work Order: 10012243

Method Blank

Type **MBLK** Test Code: **SM2340B**
File ID: **012610.B\060SMPL.D** Batch ID: **23428H** Analysis Date: **01/26/2010 22:22**
Sample ID: **MB-23428** Units : **mg/L** Run ID: **ICP/MS_100126E** Prep Date: **01/25/2010 12:19**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Hardness, Calcium (calc as CaCO3)	ND	1.2								
Hardness, Total (calc as CaCO3)	ND	2.5								

Laboratory Control Spike

Type **LCS** Test Code: **SM2340B**
File ID: **012610.B\061_LCS.D** Batch ID: **23428H** Analysis Date: **01/26/2010 22:28**
Sample ID: **LCS-23428** Units : **mg/L** Run ID: **ICP/MS_100126E** Prep Date: **01/25/2010 12:19**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Hardness, Calcium (calc as CaCO3)	127	6.2	124.9		101	81	115			
Hardness, Total (calc as CaCO3)	328	13	331		99	80	119			

Sample Matrix Spike

Type **MS** Test Code: **SM2340B**
File ID: **012610.B\067SMPL.D** Batch ID: **23428H** Analysis Date: **01/26/2010 23:02**
Sample ID: **10012247-02AMS** Units : **mg/L** Run ID: **ICP/MS_100126E** Prep Date: **01/25/2010 12:19**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Hardness, Calcium (calc as CaCO3)	227	6.2	124.9	104.2	99	63	135			
Hardness, Total (calc as CaCO3)	472	13	331	150	97	63	135			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **SM2340B**
File ID: **012610.B\068SMPL.D** Batch ID: **23428H** Analysis Date: **01/26/2010 23:07**
Sample ID: **10012247-02AMSD** Units : **mg/L** Run ID: **ICP/MS_100126E** Prep Date: **01/25/2010 12:19**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Hardness, Calcium (calc as CaCO3)	236	6.2	124.9	104.2	106	63	135	227.2	4.0(20)	
Hardness, Total (calc as CaCO3)	488	13	331	150	102	63	135	472	3.2(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *01-Mar-10*

QC Summary Report

Work Order: 10012243

Method Blank

Type: **MBLK** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **012610.B\060SMPL.D** Batch ID: **23428** Analysis Date: **01/26/2010 22:22**

Sample ID: **MB-23428** Units : **mg/L** Run ID: **ICP/MS_100126B** Prep Date: **01/25/2010 12:19**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	0.004								
Sodium (Na)	ND	0.5								
Magnesium (Mg)	ND	0.5								
Potassium (K)	ND	0.5								
Silica (SiO2)	ND	1								
Calcium (Ca)	ND	0.5								
Vanadium (V)	ND	0.005								
Chromium (Cr)	ND	0.005								
Manganese (Mn)	ND	0.005								
Iron (Fe)	ND	0.3								
Cobalt (Co)	ND	0.005								
Nickel (Ni)	ND	0.01								
Copper (Cu)	ND	0.01								
Zinc (Zn)	ND	0.1								
Arsenic (As)	ND	0.005								
Selenium (Se)	ND	0.005								
Molybdenum (Mo)	ND	0.005								
Silver (Ag)	ND	0.005								
Cadmium (Cd)	ND	0.005								
Antimony (Sb)	ND	0.005								
Barium (Ba)	ND	0.005								
Mercury (Hg)	ND	0.001								
Thallium (Tl)	ND	0.002								
Lead (Pb)	ND	0.005								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **012610.B\061_LCS.D** Batch ID: **23428** Analysis Date: **01/26/2010 22:28**

Sample ID: **LCS-23428** Units : **mg/L** Run ID: **ICP/MS_100126B** Prep Date: **01/25/2010 12:19**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.237	0.004	0.25		95	82	126			
Sodium (Na)	49	0.5	50		98	80	118			
Magnesium (Mg)	49	0.5	50		98	80	119			
Potassium (K)	49.8	0.5	50		99.6	80	118			
Silica (SiO2)	50.6	5	50		101	80	120			
Calcium (Ca)	50.7	0.5	50		101	81	115			
Vanadium (V)	0.246	0.005	0.25		98	82	124			
Chromium (Cr)	0.234	0.005	0.25		94	80	124			
Manganese (Mn)	2.28	0.005	2.5		91	83	120			
Iron (Fe)	48.5	0.3	50		97	83	119			
Cobalt (Co)	0.234	0.005	0.25		94	80	126			
Nickel (Ni)	0.236	0.01	0.25		94	83	123			
Copper (Cu)	0.237	0.01	0.25		95	85	123			
Zinc (Zn)	0.235	0.1	0.25		94	82	123			
Arsenic (As)	0.236	0.005	0.25		94	85	118			
Selenium (Se)	0.234	0.005	0.25		94	85	118			
Molybdenum (Mo)	0.24	0.005	0.25		96	85	119			
Silver (Ag)	0.238	0.005	0.25		95	79	118			
Cadmium (Cd)	0.243	0.005	0.25		97	85	121			
Antimony (Sb)	0.243	0.005	0.25		97	80	116			
Barium (Ba)	2.51	0.005	2.5		101	85	132			
Mercury (Hg)	0.00481	0.001	0.005		96	70	122			
Thallium (Tl)	0.226	0.002	0.25		90	77	119			
Lead (Pb)	0.236	0.005	0.25		95	85	120			

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Date: *01-Mar-10*

QC Summary Report

Work Order: 10012243

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **012610.B\067SMPL.D** Batch ID: **23428** Analysis Date: **01/26/2010 23:02**

Sample ID: **10012247-02AMS** Units : **mg/L** Run ID: **ICP/MS_100126B** Prep Date: **01/25/2010 12:19**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.231	0.004	0.25	0	92	70	133			
Sodium (Na)	75.8	0.5	50	27.54	97	61	135			
Magnesium (Mg)	59.5	0.5	50	11.12	97	67	134			
Potassium (K)	53	0.5	50	4.425	97	70	133			
Silica (SiO2)	89.1	5	50	38.24	102	70	130			
Calcium (Ca)	91	0.5	50	41.74	99	63	135			
Vanadium (V)	0.252	0.005	0.25	0.005833	99	70	134			
Chromium (Cr)	0.228	0.005	0.25	0	91	70	133			
Manganese (Mn)	2.46	0.005	2.5	0.2445	89	70	130			
Iron (Fe)	47.8	0.3	50	0.4257	95	70	130			
Cobalt (Co)	0.224	0.005	0.25	0	90	70	132			
Nickel (Ni)	0.228	0.01	0.25	0	91	70	132			
Copper (Cu)	0.229	0.01	0.25	0	92	70	131			
Zinc (Zn)	0.296	0.1	0.25	0	119	65	143			
Arsenic (As)	0.236	0.005	0.25	0.005019	92	70	130			
Selenium (Se)	0.23	0.005	0.25	0	92	70	131			
Molybdenum (Mo)	0.263	0.005	0.25	0.02035	97	65	140			
Silver (Ag)	0.236	0.005	0.25	0	94	70	130			
Cadmium (Cd)	0.244	0.005	0.25	0	97	70	130			
Antimony (Sb)	0.248	0.005	0.25	0	99	70	130			
Barium (Ba)	2.65	0.005	2.5	0.0801	103	70	143			
Mercury (Hg)	0.00531	0.001	0.005	0	106	68	130			
Thallium (Tl)	0.228	0.002	0.25	0	91	70	130			
Lead (Pb)	0.238	0.005	0.25	0	95	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **012610.B\068SMPL.D** Batch ID: **23428** Analysis Date: **01/26/2010 23:07**

Sample ID: **10012247-02AMSD** Units : **mg/L** Run ID: **ICP/MS_100126B** Prep Date: **01/25/2010 12:19**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.237	0.004	0.25	0	95	70	133	0.2311	2.3(20)	
Sodium (Na)	78.3	0.5	50	27.54	102	61	135	75.83	3.3(20)	
Magnesium (Mg)	61	0.5	50	11.12	99.7	67	134	59.45	2.5(20)	
Potassium (K)	55.4	0.5	50	4.425	102	70	133	52.97	4.5(20)	
Silica (SiO2)	92.6	5	50	38.24	109	70	130	89.07	3.9(20)	
Calcium (Ca)	94.7	0.5	50	41.74	106	63	135	90.99	4.0(20)	
Vanadium (V)	0.257	0.005	0.25	0.005833	100	70	134	0.2524	1.8(20)	
Chromium (Cr)	0.23	0.005	0.25	0	92	70	133	0.2284	0.7(20)	
Manganese (Mn)	2.5	0.005	2.5	0.2445	90	70	130	2.46	1.7(20)	
Iron (Fe)	49	0.3	50	0.4257	97	70	130	47.8	2.4(20)	
Cobalt (Co)	0.231	0.005	0.25	0	92	70	132	0.2238	3.1(20)	
Nickel (Ni)	0.232	0.01	0.25	0	93	70	132	0.228	1.6(20)	
Copper (Cu)	0.234	0.01	0.25	0	94	70	131	0.2291	2.3(20)	
Zinc (Zn)	0.305	0.1	0.25	0	122	65	143	0.2963	2.8(20)	
Arsenic (As)	0.242	0.005	0.25	0.005019	95	70	130	0.2357	2.4(20)	
Selenium (Se)	0.232	0.005	0.25	0	93	70	131	0.2295	0.9(20)	
Molybdenum (Mo)	0.264	0.005	0.25	0.02035	98	65	140	0.2627	0.5(20)	
Silver (Ag)	0.236	0.005	0.25	0	95	70	130	0.2355	0.3(20)	
Cadmium (Cd)	0.244	0.005	0.25	0	97	70	130	0.2436	0.0(20)	
Antimony (Sb)	0.25	0.005	0.25	0	99.8	70	130	0.2481	0.6(20)	
Barium (Ba)	2.64	0.005	2.5	0.0801	102	70	143	2.649	0.3(20)	
Mercury (Hg)	0.00535	0.001	0.005	0	107	68	130	0.005312	0.7(20)	
Thallium (Tl)	0.232	0.002	0.25	0	93	70	130	0.2277	1.7(20)	
Lead (Pb)	0.242	0.005	0.25	0	97	70	130	0.2383	1.4(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

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Date: *04-Feb-10*

QC Summary Report

Work Order: 10012243

Method Blank

Type **MBLK** Test Code: **EPA Method 200.8**

File ID: **012510.B\072SMPL.D** Batch ID: **23421** Analysis Date: **01/25/2010 18:07**

Sample ID: **MB-23421** Units : **mg/L** Run ID: **ICP/MS_100125B** Prep Date: **01/22/2010 11:01**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	ND	1								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method 200.8**

File ID: **012510.B\073_LCS.D** Batch ID: **23421** Analysis Date: **01/25/2010 18:13**

Sample ID: **LCS-23421** Units : **mg/L** Run ID: **ICP/MS_100125B** Prep Date: **01/22/2010 11:01**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	5.01	1	5		100	76	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method 200.8**

File ID: **012510.B\078SMPL.D** Batch ID: **23421** Analysis Date: **01/25/2010 18:41**

Sample ID: **10012004-01AMS** Units : **mg/L** Run ID: **ICP/MS_100125B** Prep Date: **01/22/2010 11:01**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	43	10	5	37.71	106	70	130			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method 200.8**

File ID: **012510.B\079SMPL.D** Batch ID: **23421** Analysis Date: **01/25/2010 18:47**

Sample ID: **10012004-01AMSD** Units : **mg/L** Run ID: **ICP/MS_100125B** Prep Date: **01/22/2010 11:01**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	42.6	10	5	37.71	98	70	130	42.99	0.9(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *04-Feb-10*

QC Summary Report

Work Order: 10012243

Laboratory Control Spike Type **LCS** Test Code: **EPA Method 150.2 / SM4500HB / SW9040C**

File ID: Batch ID: **W0122PH** Analysis Date: **01/22/2010 14:10**

Sample ID: **LCS-W0122PH** Units : **pH Units** Run ID: **WETLAB_100122A** Prep Date: **01/22/2010 14:10**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
pH	5.01	1.7	5		100	90	110			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
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Date: *04-Feb-10*

QC Summary Report

Work Order: 10012243

Method Blank

Type **MBLK** Test Code: **EPA Method 365.3 / SM4500PE**
File ID: Batch ID: **W0126TP** Analysis Date: **01/26/2010 00:00**
Sample ID: **MBLK-W0126TP** Units : **mg/L** Run ID: **WETLAB_100126A** Prep Date: **01/26/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	ND	0.1								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method 365.3 / SM4500PE**
File ID: Batch ID: **W0126TP** Analysis Date: **01/26/2010 00:00**
Sample ID: **LCS-W0126TP** Units : **mg/L** Run ID: **WETLAB_100126A** Prep Date: **01/26/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	1.02	0.1	1		102	73	127			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method 365.3 / SM4500PE**
File ID: Batch ID: **W0126TP** Analysis Date: **01/26/2010 00:00**
Sample ID: **10012243-01AMS** Units : **mg/L** Run ID: **WETLAB_100126A** Prep Date: **01/26/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	1.04	0.1	1	0	104	73	127			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method 365.3 / SM4500PE**
File ID: Batch ID: **W0126TP** Analysis Date: **01/26/2010 00:00**
Sample ID: **10012443-01AMSD** Units : **mg/L** Run ID: **WETLAB_100126A** Prep Date: **01/26/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	1.06	0.1	1	0	106	73	127	1.038	2.4(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *04-Feb-10*

QC Summary Report

Work Order: 10012243

Method Blank

Type **MBLK** Test Code: **SM4500-S D**
File ID: Batch ID: **W0128SU** Analysis Date: **01/28/2010 00:00**
Sample ID: **MBLK-W0128SU** Units : **mg/L** Run ID: **WETLAB_100128F** Prep Date: **01/28/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	ND	0.1								

Laboratory Control Spike

Type **LCS** Test Code: **SM4500-S D**
File ID: Batch ID: **W0128SU** Analysis Date: **01/28/2010 00:00**
Sample ID: **LCS-W0128SU** Units : **mg/L** Run ID: **WETLAB_100128F** Prep Date: **01/28/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	1.23	0.1	1		123	75	130			

Sample Matrix Spike

Type **MS** Test Code: **SM4500-S D**
File ID: Batch ID: **W0128SU** Analysis Date: **01/28/2010 00:00**
Sample ID: **10012243-01AMS** Units : **mg/L** Run ID: **WETLAB_100128F** Prep Date: **01/28/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	1.28	0.1	1	0	128	65	150			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **SM4500-S D**
File ID: Batch ID: **W0128SU** Analysis Date: **01/28/2010 00:00**
Sample ID: **10012243-01AMSD** Units : **mg/L** Run ID: **WETLAB_100128F** Prep Date: **01/28/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	1.25	0.1	1	0	125	65	150	1.279	2.5(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *04-Feb-10*

QC Summary Report

Work Order: 10012243

Method Blank

Type **MBLK** Test Code: **SM2540C**
File ID: Batch ID: **W0125DS** Analysis Date: **01/29/2010 00:00**
Sample ID: **MBLK-W0125DS** Units : **mg/L** Run ID: **WETLAB_100125D** Prep Date: **01/29/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Solids, Total Dissolved (TDS)	ND	10								

Laboratory Control Spike

Type **LCS** Test Code: **SM2540C**
File ID: Batch ID: **W0125DS** Analysis Date: **01/28/2010 00:00**
Sample ID: **LCS-W0125DS** Units : **mg/L** Run ID: **WETLAB_100125D** Prep Date: **01/28/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Solids, Total Dissolved (TDS)	104	10	100		104	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

ANALYTICAL SUMMARY REPORT

February 10, 2010

Reyna Vallejo
Alpha Analytical Inc
255 Glendale Ave Ste 21
Sparks, NV 89431

Workorder No.: C10010844

Project Name: WPK10012243

Energy Laboratories, Inc. received the following 1 sample for Alpha Analytical Inc on 1/26/2010 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C10010844-001	WPK10012243-01A	01/21/10 08:15	01/26/10	Aqueous	Gross Alpha, Gross Beta

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By: Stephanie D. Waldrop

Stephanie D. Waldrop
Reporting Supervisor

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
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LABORATORY ANALYTICAL REPORT

Client: Alpha Analytical Inc
Project: WPK10012243
Lab ID: C10010844-001
Client Sample ID: WPK10012243-01A

Report Date: 02/10/10
Collection Date: 01/21/10 08:15
DateReceived: 01/26/10
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Gross Alpha	-9	pCi/L	U			E900.0	02/09/10 05:14 / cgr
Gross Alpha precision (±)	11.5	pCi/L				E900.0	02/09/10 05:14 / cgr
Gross Alpha MDC	20.8	pCi/L				E900.0	02/09/10 05:14 / cgr

- Method E900.0 is equivalent to SW9310.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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QA/QC Summary Report

Client: Alpha Analytical Inc
Project: WPK10012243

Report Date: 02/10/10
Work Order: C10010844

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: GrAB-0830
Sample ID: MB-GrAB-0830	3	Method Blank				Run: G5000W_100203A				02/07/10 00:26
Gross Alpha		0.3	pCi/L							U
Gross Alpha precision (±)		0.8	pCi/L							
Gross Alpha MDC		0.8	pCi/L							
Sample ID: Th230-GrAB-0830		Laboratory Control Sample				Run: G5000W_100203A				02/07/10 00:26
Gross Alpha		100	pCi/L		99	70	130			
Sample ID: C10010571-004DDUP	3	Sample Duplicate				Run: G5000W_100203A				02/07/10 00:26
Gross Alpha		41.1	pCi/L					9.4	32.1	
Gross Alpha precision (±)		4.43	pCi/L							
Gross Alpha MDC		3.76	pCi/L							
Sample ID: C10010683-001DMS		Sample Matrix Spike				Run: G5000W_100203A				02/07/10 00:26
Gross Alpha		847	pCi/L		117	70	130			
- Sample response is much larger than spike amount, therefore small variances in the sample adversely affected the recovery. The LCS and the RPD of the MS/MSD pair meets acceptance criteria; this batch is approved.										
Sample ID: C10010683-001DMSD		Sample Matrix Spike Duplicate				Run: G5000W_100203A				02/09/10 05:14
Gross Alpha		974	pCi/L		242	70	130	14	20	S

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

AMENDED #2

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10012243

Report Due By : 5:00 PM On : 05-Feb-2010

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com

EDD Required : **No**

Sampled by : Terence Robertson

PO :

Client's COC # : 30745 Job : 52004617-Blythe/Genesis

Cooler Temp	Samples Received	Date Printed
4 °C	22-Jan-2010	**01-Mar-2010**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	300_0_W	ALKALINITY_W	CONDUCTIVITY	G_ALPHABETA_W	HARDNESS_W	METALS_AQ	METALS_DS	PH_W	Sample Remarks
							Requested Tests								
WPK10012243-01A	TW-2-01-21-10 Zone2 End	AQ	01/21/10 08:15	11	2	10	CA	CA	CA	Gross Alpha	CA	CAM_17_TTLC	SiO2	CA	

Comments: Security seals intact. Frozen ice. TAT not noted on COC, therefore logged in as STD TAT. Gross Alpha subbed to Energy Labs. Gross Alpha polys rec'd in non-preserved, polys preserved w/ HNO3 in lab. Amended 2/2/10 to change date rec'd from : 1/23/10 to 1/22/10, due to login error. TD. Amended 3/1/10 @ 10:29: Per Ed via Reyna added CAM 17 sample -01A. EA

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Adcox	Elizabeth Adcox	Alpha Analytical, Inc.	3-1-10 1031

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

AMENDED #2

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10012243

Report Due By : 5:00 PM On : 05-Feb-2010

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com

EDD Required : **No**

Sampled by : Terence Robertson

PO :

Client's COC # : 30745 Job : 52004617-Blythe/Genesis

Cooler Temp	Samples Received	Date Printed
4 °C	22-Jan-2010	**01-Mar-2010**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	No. of Bottles Sub	TAT	PHOSPHORUS_W	SULFIDE_W	TDS_W	Requested Tests	Sample Remarks
WPK10012243-01A	TW-2-01-21-10 Zone2 End	AQ	01/21/10 08:15	11	2	10	Total	Sulfide	CA		

Comments: Security seals intact. Frozen ice. TAT not noted on COC, therefore logged in as STD TAT. Gross Alpha subbed to Energy Labs. Gross Alpha polys rec'd in non-preserved, polys preserved w/ HNO3 in lab. Amended 2/2/10 to change date rec'd from : 1/23/10 to 1/22/10, due to login error. TD. Amended 3/1/10 @ 10:29: Per Ed via Reyna added CAM 17 sample -01A. EA

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Adcox	Elizabeth Adcox	Alpha Analytical, Inc.	3-1-10 1031

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

AMENDED

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10012243

Report Due By : 5:00 PM On : 05-Feb-10

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com

EDD Required : **No**

Sampled by : Terence Robertson

PO :

Client's COC # : 30745 Job : 52004617-Blythe/Genesis

Cooler Temp	Samples Received	Date Printed
4 °C	22-Jan-10	02-Feb-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	300_0_W	ALKALINITY_W	CONDUCTIVITY	G_ALPHABETA_W	HARDNESS_W	METALS_AQ	METALS_DS	PH_W	Sample Remarks
							Requested Tests								
WPK10012243-01A	TW-2-01-21-10 Zone2 End	AQ	01/21/10 08:15	11	2	10	CA	CA	CA	Gross Alpha	CA	CA	SiO2	CA	

Comments: Security seals intact. Frozen ice. TAT not noted on COC, therefore logged in as STD TAT. Gross Alpha subbed to Energy Labs. Gross Alpha polys rec'd in non-preserved, polys preserved w/ HNO3 in lab. Amended 2/2/10 to change date rec'd from : 1/23/10 to 1/22/10, due to login error. TD.

	Signature	Print Name	Company	Date/Time
Logged in by:	Tara Jackson	Tara Jackson	Alpha Analytical, Inc.	2/2/10 7:40

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

AMENDED

CA

Billing Information :

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10012243

Report Due By : 5:00 PM On : 05-Feb-10

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com

EDD Required : **No**

Sampled by : Terence Robertson

PO :

Client's COC # : 30745 Job : 52004617-Blythe/Genesis

Cooler Temp	Samples Received	Date Printed
4 °C	22-Jan-10	02-Feb-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	PHOSPHORUS_W	SULFIDE_W	TDS						Sample Remarks
							Requested Tests								
WPK10012243-01A	TW-2-01-21-10 Zone2 End	AQ	01/21/10 08:15	11	2	10	Total	Sulfide	CA						

Comments: Security seals intact. Frozen ice. TAT not noted on COC, therefore logged in as STD TAT. Gross Alpha subbed to Energy Labs. Gross Alpha polys rec'd in non-preserved, polys preserved w/ HNO3 in lab. Amended 2/2/10 to change date rec'd from : 1/23/10 to 1/22/10, due to login error. TD.

	Signature	Print Name	Company	Date/Time
Logged in by:	Tara Dickinson	Tara Dickinson	Alpha Analytical, Inc.	2/2/10 7:40

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10012243

Report Due By : 5:00 PM On : 05-Feb-10

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com

EDD Required : No

Sampled by : Terence Robertson

PO :

Client's COC # : 30745 Job : 52004617-Blythe/Genesis

Cooler Temp	Samples Received	Date Printed
4 °C	23-Jan-10	22-Jan-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	300_0_W	ALKALINITY_W	CONDUCTIVITY	G_ALPHABETA_W	HARDNESS_W	METALS_AQ	METALS_DS	PH_W	Sample Remarks
WPK10012243-01A	TW-2-01-21-10 Zone2 End	AQ	01/21/10 08:15	11	2	10	CA	CA	CA	Gross Alpha	CA	CA	SiO2	CA	

Comments: Security seals intact, Frozen ice. TAT not noted on COC, therefore logged in as STD TAT. Gross Alpha subbed to Energy Labs. Gross Alpha polys rec'd in non-preserved, polys preserved w/ HNO3 in lab. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Tave Dickinson	Tave Dickinson	Alpha Analytical, Inc.	1/22/10 1335

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10012243

Report Due By : 5:00 PM On : 05-Feb-10

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsous.com

EDD Required : **No**

Sampled by : Terence Robertson

PO :

Client's COC # : 30745 Job : 52004617-Blythe/Genesis

Cooler Temp	Samples Received	Date Printed
4 °C	23-Jan-10	22-Jan-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	PHOSPHORUS_W	SULFIDE_W	TDS						Sample Remarks
							Requested Tests								
WPK10012243-01A	TW-2-01-21-10 Zone2 End	AQ	01/21/10 08:15	11	2	10	Total	Sulfide	CA						

Comments: Security seals intact. Frozen ice. TAT not noted on COC, therefore logged in as STD TAT. Gross Alpha subbed to Energy Labs. Gross Alpha polys rec'd in non-preserved, polys preserved w/ HNO3 in lab. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Tara Dickinson	Tara Dickinson	Alpha Analytical, Inc.	1/22/10 1335

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

30745

Billing Information:
Company Name WORLEY PARSONS (MIKE TIETZE)
Attn: 2330 E. Bidwell ST #150
Address Folsom CA 95630
City, State, Zip
Phone Number 9168173920 Fax 916-9831935

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State? AZ ___ CA X NV ___ WA ___ DOD Site ___ ID ___ OR ___ OTHER ___ Page # ___ of ___

Consultant / Client Name: Worley Parsons
Address: 2330 E. Bidwell ST #150
City, State, Zip: Folsom CA 95630
Job # 52004617
Job Name: Blythe/Genesis
Report Attention / Project Manager
Name: MIKE TIETZE
Email: MIKE.TIETZE@worleyparsons.com
Phone: 916-8173920 Mobile: 9

Data Validation Level: III or IV
EDD / EDF? YES ___ NO ___
Global ID # ___

Time Sampled	Date Sampled	Matrix* See Key Below	P.O. # / Lab ID Number (Office Use Only)	Sample Description	TAT	Field Filtered	# Containers**	GEN MINERALS	ANIONS	CATIONS	REACTIVE SILICA	TDS	Gross Alpha	Sulfide	Total Phosphate	REMARKS
8:15AM	1/21	AQ	WPK10012243-01	TW-Z-01-21-10 ZONE 2 END		Y	13/VAR	X	X	X	X	X	X	X		*Include for Calcium Hardness

ADDITIONAL INSTRUCTIONS:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action (NAC 445.0636 (c) (2)). Sampled By: ___

Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	Date	Time
[signature] / Worley Parsons	[signature]	1-21-10	12:00PM
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	1/22/10	13:34
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)		

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

General Mineral	Title 22 Metals (CAM 17)	Anions	Addition Analysis
Alkalinity	As	Chloride	Sulfide
Chloride	Hg	Fluoride	Total Phosphate
Flouride	Sb	Nitrate	Gross Alpha
Hardness	Ba	Nitrate	Total & Reactive (Dissloved) Silica
Nitrate	Be	Ortho - Phosphate	
Nitrate	Cd	Sulfate	
Specific Conductivity (EC)	Cr		
Sulfate	Co		
Total Dissolved Solids	Cu		
pH	Pb		
Ca	Mo		
K	Ni		
Mg	Se		
Na	Ag		
Cu	Tl		
Fe	Zn		
Mn			
Zn			

Bottle Requirements - Per sampling Point

General Mineral + Total and Dissolved Silica:

(2) 1 Liter Polys Unpreserved - TDS & General Minerals (48hr HT)
(1) 250mL HNO3 Poly - Metals

Title 22 Metals:

(1) 500mL HNO3 Poly

Anions:

(1) 500mL Unpreserved Poly - Orthod Phosphate (48hr HT)

Additional Analysis:

(1) 250mL Glass ZnAcetate Bottle- Sulfide
(1) 500mL H2SO4 Poly - Total Phosphate Add Ammonia to this bottle per Ed.
(2) 1L Polys - Gross Alpha & Bets

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 01/09/10

Job: 52004617

Anions by IC
EPA Method 300.0

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-06-10-Zone 3&4 Comb Mid**					
Lab ID : WPK10011101-01A	Fluoride	5.2	0.13 mg/L	01/12/10 11:17	01/12/10 12:56
Date Sampled 01/06/10 19:10	Chloride	1,500	25 mg/L	01/12/10 11:17	01/12/10
	Sulfate (SO4)	470	25 mg/L	01/12/10 11:17	01/12/10
Client ID: **TW-2-01-08-10-Zone 3&4 Comb End**					
Lab ID : WPK10011101-02A	Fluoride	5.2	0.13 mg/L	01/12/10 11:17	01/12/10 13:33
Date Sampled 01/08/10 08:10	Chloride	1,400	25 mg/L	01/12/10 11:17	01/12/10
	Nitrate (NO3) - N	ND *	0.25 mg/L	01/12/10 11:17	01/12/10 13:52
	Sulfate (SO4)	500	25 mg/L	01/12/10 11:17	01/12/10
	Phosphate, ortho - P	ND	0.25 mg/L	01/12/10 11:17	01/12/10 13:33

*Nitrate was analyzed on a preserved sample. The accuracy of Nitrate may be biased high due to the possible oxidation of Nitrite to Nitrate.

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com
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1/13/10
Report Date

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 01/09/10

Job: 52004617

Alkalinity
SM2320B

Parameter		Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-06-10-Zone 3&4 Comb Mid**					
Lab ID : WPK10011101-01A	Alkalinity, Bicarbonate (As CaCO3)	57	10 mg/L	01/13/10	01/13/10
Date Sampled 01/06/10 19:10	Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	01/13/10	01/13/10
	Alkalinity, Hydroxide (As CaCO3)	ND	10 mg/L	01/13/10	01/13/10
	Alkalinity, Total (As CaCO3 at pH 4.5)	57	10 mg/L	01/13/10	01/13/10
Client ID: **TW-2-01-08-10-Zone 3&4 Comb End**					
Lab ID : WPK10011101-02A	Alkalinity, Bicarbonate (As CaCO3)	56	10 mg/L	01/13/10	01/13/10
Date Sampled 01/08/10 08:10	Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	01/13/10	01/13/10
	Alkalinity, Hydroxide (As CaCO3)	ND	10 mg/L	01/13/10	01/13/10
	Alkalinity, Total (As CaCO3 at pH 4.5)	56	10 mg/L	01/13/10	01/13/10

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

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ANALYTICAL REPORT

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2330 E. Bidwell St.
Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 01/09/10

Job: 52004617

Ammonia as Nitrogen
SM4500-NH3D

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-08-10-Zone 3&4 Comb End**				
Lab ID : WPK10011101-02A Nitrogen, Ammonia (As N)	0.14	0.10 mg/L	01/12/10	01/12/10
Date Sampled 01/08/10 08:10				

Roger Scholl Randy Gardner Walter Hinchman

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Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 01/09/10

Job: 52004617

Specific Conductance at 25°C
EPA Method 120.1 / SM2510B / SW9050A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-06-10-Zone 3&4 Comb Mid**				
Lab ID : WPK10011101-01A Specific Conductance (at 25°C)	5,400	10 µS/cm	01/11/10	01/11/10
Date Sampled 01/06/10 19:10				
Client ID: **TW-2-01-08-10-Zone 3&4 Comb End**				
Lab ID : WPK10011101-02A Specific Conductance (at 25°C)	5,500	10 µS/cm	01/11/10	01/11/10
Date Sampled 01/08/10 08:10				

Roger Scholl Randy Gardner Walter Hinchman

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630
Job: 52004617

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048

Alpha Analytical Number: WPK10011101-01A
Client I.D. Number: TW-2-01-06-10-Zone 3&4 Comb Mid

Sampled: 01/06/10
Received: 01/09/10

Method Reference : EPA Method SW6020 / SW6020A

Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Sodium (Na)	2,100	5.0		mg/L	01/13/10 21:17	01/13/10
Potassium (K)	19	0.50		mg/L	01/13/10 21:17	01/13/10
Manganese (Mn)	0.089	0.0050		mg/L	01/13/10 21:17	01/13/10
Iron (Fe)	0.49	0.30		mg/L	01/13/10 21:17	01/13/10
Copper (Cu)	ND	0.010		mg/L	01/13/10 21:17	01/13/10
Zinc (Zn)	ND	0.10		mg/L	01/13/10 21:17	01/13/10

Method Reference : SM2340B

Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Magnesium (Mg)	3.8	0.50		mg/L	01/13/10 21:17	01/13/10
Calcium (Ca)	110	0.50		mg/L	01/13/10 21:17	01/13/10
Hardness, Calcium (calc as CaCO3)	280	1.2		mg/L	01/13/10 21:17	01/13/10
Hardness, Total (calc as CaCO3)	290	2.5		mg/L	01/13/10 21:17	01/13/10

This replaces the report originally signed 1/13/10, due to a change in the analyte list, per client request.

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

3/1/10
Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (310) 803-7761 / info@alpha-analytical.com

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630
Job: 52004617

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048

Alpha Analytical Number: WPK10011101-02A
Client I.D. Number: TW-2-01-08-10-Zone 3&4 Comb End

Sampled: 01/08/10
Received: 01/09/10

Method Reference : EPA Method SW6020 / SW6020A

Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Beryllium (Be)	ND	0.0040		mg/L	01/13/10 21:17	01/13/10
Sodium (Na)	1,000	10		mg/L	01/13/10 21:17	01/13/10
Potassium (K)	18	0.50		mg/L	01/13/10 21:17	01/13/10
Vanadium (V)	ND	0.0050		mg/L	01/13/10 21:17	01/13/10
Chromium (Cr)	ND	0.0050		mg/L	01/13/10 21:17	01/13/10
Manganese (Mn)	0.085	0.0050		mg/L	01/13/10 21:17	01/13/10
Iron (Fe)	0.50	0.30		mg/L	01/13/10 21:17	01/13/10
Cobalt (Co)	ND	0.0050		mg/L	01/13/10 21:17	01/13/10
Nickel (Ni)	ND	0.010		mg/L	01/13/10 21:17	01/13/10
Copper (Cu)	ND	0.010		mg/L	01/13/10 21:17	01/13/10
Zinc (Zn)	ND	0.10		mg/L	01/13/10 21:17	01/13/10
Arsenic (As)	0.025	0.0050		mg/L	01/13/10 21:17	01/13/10
Selenium (Se)	ND	0.0050		mg/L	01/13/10 21:17	01/13/10
Molybdenum (Mo)	0.081	0.0050		mg/L	01/13/10 21:17	01/13/10
Silver (Ag)	ND	0.0050		mg/L	01/13/10 21:17	01/13/10
Cadmium (Cd)	ND	0.0050		mg/L	01/13/10 21:17	01/13/10
Antimony (Sb)	ND	0.0050		mg/L	01/13/10 21:17	01/13/10
Barium (Ba)	0.054	0.0050		mg/L	01/13/10 21:17	01/13/10
Mercury (Hg)	ND	0.0010		mg/L	01/13/10 21:17	01/13/10
Thallium (Tl)	ND	0.0020		mg/L	01/13/10 21:17	01/13/10
Lead (Pb)	ND	0.0050		mg/L	01/13/10 21:17	01/13/10

This replaces the report originally signed 1/13/10, due to a change in the analyte list, per client request.

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (310) 803-7761 / info@alpha-analytical.com

3/1/10
Report Date

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Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630
Job: 52004617

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048

Alpha Analytical Number: WPK10011101-02A
Client I.D. Number: TW-2-01-08-10-Zone 3&4 Comb End

Sampled: 01/08/10
Received: 01/09/10

Method Reference : SM2340B

Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Magnesium (Mg)	3.8	0.50		mg/L	01/13/10 21:17	01/13/10
Calcium (Ca)	100	0.50		mg/L	01/13/10 21:17	01/13/10
Hardness, Calcium (calc as CaCO3)	260	1.2		mg/L	01/13/10 21:17	01/13/10
Hardness, Total (calc as CaCO3)	270	2.5		mg/L	01/13/10 21:17	01/13/10

This replaces the report originally signed 1/13/10, due to a change in the analyte list, per client request.

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

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Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (310) 803-7761 / info@alpha-analytical.com

1/1/10
Report Date

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 01/09/10

Job: 52004617

Dissolved Metals by ICPMS
EPA Method SW6020 / SW6020A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-08-10-Zone 3&4 Comb End**				
Lab ID : WPK10011101-02A Silica (SiO2), Dissolved	34	1.0 mg/L	01/12/10 13:51	01/13/10
Date Sampled 01/08/10 08:10				

Roger Scholl Randy Gardner Walter Hinchman

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ANALYTICAL REPORT

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Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 01/09/10

Job: 52004617

pH (Range 1.7 to 12.4)
EPA Method 150.2 / SM4500HB / SW9040C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-06-10-Zone 3&4 Comb Mid**				
Lab ID : WPK10011101-01A pH	8.0	1.7 pH Units	01/11/10 11:13	01/11/10 11:13
Date Sampled 01/06/10 19:10 pH - Temperature	23	1.0 °C	01/11/10 11:13	01/11/10 11:13
Client ID: **TW-2-01-08-10-Zone 3&4 Comb End**				
Lab ID : WPK10011101-02A pH	8.0	1.7 pH Units	01/11/10 11:22	01/11/10 11:22
Date Sampled 01/08/10 08:10 pH - Temperature	22	1.0 °C	01/11/10 11:22	01/11/10 11:22

The EPA has established an analytical holding time of 15 minutes for this method as documented in the Methods Update Rule, Federal Register, Vol 72, No 47, March 2007. This holding time will always be exceeded, unless samples are analyzed in the field.
The laboratory performed this analysis in the shortest practical holding time after sample receipt.

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com
Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.
Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

1/13/10
Report Date

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 01/09/10

Job: 52004617

Phosphorus
EPA Method 365.3 / SM4500PE

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-08-10-Zone 3&4 Comb End**				
Lab ID : WPK10011101-02A Phosphorus, Total (As P)	ND	0.10 mg/L	01/13/10	01/13/10
Date Sampled 01/08/10 08:10				

ND = Not Detected

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Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 01/09/10

Job: 52004617

Sulfide
SM4500-S D

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-08-10-Zone 3&4 Comb End**				
Lab ID : WPK10011101-02A Sulfide	ND	0.10 mg/L	01/12/10	01/12/10
Date Sampled 01/08/10 08:10				

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

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ANALYTICAL REPORT

Worley Parsons Komex
2330 E. Bidwell St.
Folsom, CA 95630

Attn: Ed Baquerizo
Phone: (916) 627-0048
Fax: (916) 627-0048
Date Received : 01/09/10

Job: 52004617

Total Dissolved Solids (TDS)
SM2540C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **TW-2-01-06-10-Zone 3&4 Comb Mid**				
Lab ID : WPK10011101-01A Solids, Total Dissolved (TDS)	3,100	25 mg/L	01/12/10	01/12/10
Date Sampled 01/06/10 19:10				
Client ID: **TW-2-01-08-10-Zone 3&4 Comb End**				
Lab ID : WPK10011101-02A Solids, Total Dissolved (TDS)	3,000	25 mg/L	01/12/10	01/12/10
Date Sampled 01/08/10 08:10				

Roger Scholl Randy Gardner Walter Hinchman

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Report Date

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Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Method Blank

File ID: **17** | Type: **MBLK** | Test Code: **EPA Method 300.0**

Batch ID: **23363A** | Analysis Date: **01/12/2010 12:00**

Sample ID: **MB-23363** | Units : **mg/L** | Run ID: **IC_1_100112A** | Prep Date: **01/12/2010 11:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	ND	0.13								
Nitrate (NO3) - N	ND	0.25								
Phosphate, ortho - P	ND	0.25								

Laboratory Fortified Blank

File ID: **30** | Type: **LFB** | Test Code: **EPA Method 300.0**

Batch ID: **23363A** | Analysis Date: **01/12/2010 16:01**

Sample ID: **LFB-23363** | Units : **mg/L** | Run ID: **IC_1_100112A** | Prep Date: **01/12/2010 11:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	1.18	0.13	1.25		94	90	110			
Nitrate (NO3) - N	1.19	0.25	1.25		95	90	110			
Phosphate, ortho - P	1.36	0.5	1.25		109	90	110			

Sample Matrix Spike

File ID: **26** | Type: **LFM** | Test Code: **EPA Method 300.0**

Batch ID: **23363A** | Analysis Date: **01/12/2010 14:47**

Sample ID: **10011101-02ALFMN** | Units : **mg/L** | Run ID: **IC_1_100112B** | Prep Date: **01/12/2010 11:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Nitrate (NO3) - N	82.1	0.63	62.5	0	131	80	120			M1

Sample Matrix Spike

File ID: **26** | Type: **LFM** | Test Code: **EPA Method 300.0**

Batch ID: **23363A** | Analysis Date: **01/12/2010 14:47**

Sample ID: **10011101-02ALFM** | Units : **mg/L** | Run ID: **IC_1_100112A** | Prep Date: **01/12/2010 11:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	64.2	0.63	62.5	5.152	94	80	120			
Phosphate, ortho - P	63.2	1.3	62.5	0	101	80	120			

Sample Matrix Spike Duplicate

File ID: **27** | Type: **LFMD** | Test Code: **EPA Method 300.0**

Batch ID: **23363A** | Analysis Date: **01/12/2010 15:06**

Sample ID: **10011101-02ALFMDN** | Units : **mg/L** | Run ID: **IC_1_100112B** | Prep Date: **01/12/2010 11:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Nitrate (NO3) - N	60	0.63	62.5	0	96	80	120	82.09	31.0(10)	R5

Sample Matrix Spike Duplicate

File ID: **27** | Type: **LFMD** | Test Code: **EPA Method 300.0**

Batch ID: **23363A** | Analysis Date: **01/12/2010 15:06**

Sample ID: **10011101-02ALFMD** | Units : **mg/L** | Run ID: **IC_1_100112A** | Prep Date: **01/12/2010 11:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Fluoride	63.1	0.63	62.5	5.152	93	80	120	64.19	1.7(10)	
Phosphate, ortho - P	89.9	1.3	62.5	0	144	80	120	63.18	34.9(10)	M1 R5

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M1 = Matrix spike recovery was high, the method control sample recovery was acceptable.

R5 = MS/MSD RPD exceeded the laboratory control limit. Recovery met acceptance criteria.

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Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Method Blank

File ID: **17** | Type: **MBLK** | Test Code: **EPA Method 300.0**

Sample ID: **MB-23363** | Units : **mg/L** | Run ID: **IC_1_100112C** | Batch ID: **23363B** | Analysis Date: **01/12/2010 12:00** | Prep Date: **01/12/2010 12:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfate (SO4)	ND	0.5								

Laboratory Fortified Blank

File ID: **30** | Type: **LFB** | Test Code: **EPA Method 300.0**

Sample ID: **LFB-23363** | Units : **mg/L** | Run ID: **IC_1_100112C** | Batch ID: **23363B** | Analysis Date: **01/12/2010 16:01** | Prep Date: **01/12/2010 16:01**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfate (SO4)	9.87	0.5	10		99	90	110			

Sample Matrix Spike

File ID: **26** | Type: **LFM** | Test Code: **EPA Method 300.0**

Sample ID: **10011101-02ALFM** | Units : **mg/L** | Run ID: **IC_1_100112C** | Batch ID: **23363B** | Analysis Date: **01/12/2010 14:47** | Prep Date: **01/12/2010 14:47**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfate (SO4)	1010	1.3	500	504.6	101	80	120			

Sample Matrix Spike Duplicate

File ID: **27** | Type: **LFMD** | Test Code: **EPA Method 300.0**

Sample ID: **10011101-02ALFMD** | Units : **mg/L** | Run ID: **IC_1_100112C** | Batch ID: **23363B** | Analysis Date: **01/12/2010 15:06** | Prep Date: **01/12/2010 15:06**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfate (SO4)	959	1.3	500	504.6	91	80	120	1010	5.2(10)	

Comments:

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Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Method Blank

File ID: **17** | Type: **MBLK** | Test Code: **EPA Method 300.0**
Sample ID: **MB-23363** | Units : **mg/L** | Batch ID: **23363C** | Run ID: **IC_1_100112C** | Analysis Date: **01/12/2010 12:00** | Prep Date: **01/12/2010 12:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	ND	0.5								

Laboratory Fortified Blank

File ID: **30** | Type: **LFB** | Test Code: **EPA Method 300.0**
Sample ID: **LFB-23363** | Units : **mg/L** | Batch ID: **23363C** | Run ID: **IC_1_100112C** | Analysis Date: **01/12/2010 16:01** | Prep Date: **01/12/2010 16:01**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	4.64	0.5	5		93	90	110			

Sample Matrix Spike

File ID: **26** | Type: **LFM** | Test Code: **EPA Method 300.0**
Sample ID: **10011101-02ALFM** | Units : **mg/L** | Batch ID: **23363C** | Run ID: **IC_1_100112C** | Analysis Date: **01/12/2010 14:47** | Prep Date: **01/12/2010 14:47**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	1740	1.3	250	1447	117	80	120			

Sample Matrix Spike Duplicate

File ID: **27** | Type: **LFMD** | Test Code: **EPA Method 300.0**
Sample ID: **10011101-02ALFMD** | Units : **mg/L** | Batch ID: **23363C** | Run ID: **IC_1_100112C** | Analysis Date: **01/12/2010 15:06** | Prep Date: **01/12/2010 15:06**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	1750	1.3	250	1447	122	80	120	1739	0.7(10)	M1

Comments:

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M1 = Matrix spike recovery was high, the method control sample recovery was acceptable.

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Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Laboratory Control Spike Type: **LCS** Test Code: **SM2320B**

File ID: Batch ID: **W0113AL** Analysis Date: **01/13/2010 11:51**

Sample ID: **LCS-W0113AL** Units : **mg/L** Run ID: **WETLAB_100113A** Prep Date: **01/13/2010 11:51**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Alkalinity, Bicarbonate (As CaCO3)	237.4	10	250		95	80	120			
Alkalinity, Carbonate (As CaCO3)	237.4	10	250		95	80	120			
Alkalinity, Hydroxide (As CaCO3)	237.4	10	250		95	80	120			
Alkalinity, Total (As CaCO3 at pH 4.5)	237	10	250		95	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Method Blank

File ID: | Type: **MBLK** | Test Code: **SM4500-NH3D**

Sample ID: **MBLK-W0112AM** | Units : **mg/L** | Run ID: **WETLAB_100112A** | Batch ID: **W0112AM** | Analysis Date: **01/12/2010 13:45** | Prep Date: **01/12/2010 13:45**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Nitrogen, Ammonia (As N)	ND	0.1								

Laboratory Control Spike

File ID: | Type: **LCS** | Test Code: **SM4500-NH3D**

Sample ID: **LCS-W0112AM** | Units : **mg/L** | Run ID: **WETLAB_100112A** | Batch ID: **W0112AM** | Analysis Date: **01/12/2010 13:52** | Prep Date: **01/12/2010 13:52**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Nitrogen, Ammonia (As N)	5.56	0.1	5		111	70	130			

Sample Matrix Spike

File ID: | Type: **MS** | Test Code: **SM4500-NH3D**

Sample ID: **10011101-02AMS** | Units : **mg/L** | Run ID: **WETLAB_100112A** | Batch ID: **W0112AM** | Analysis Date: **01/12/2010 14:02** | Prep Date: **01/12/2010 14:02**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Nitrogen, Ammonia (As N)	4.78	0.1	5	0.135	93	65	138			

Sample Matrix Spike Duplicate

File ID: | Type: **MSD** | Test Code: **SM4500-NH3D**

Sample ID: **10011101-02AMSD** | Units : **mg/L** | Run ID: **WETLAB_100112A** | Batch ID: **W0112AM** | Analysis Date: **01/12/2010 14:05** | Prep Date: **01/12/2010 14:05**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Nitrogen, Ammonia (As N)	5.97	0.1	5	0.135	117	65	138	4.78	22.1(20)	R5

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

R5 = MS/MSD RPD exceeded the laboratory control limit. Recovery met acceptance criteria.

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Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Method Blank

Type: **MBLK** Test Code: **EPA Method 120.1 / SM2510B / SW9050A**

File ID: Batch ID: **W0111CN** Analysis Date: **01/11/2010 11:57**

Sample ID: **MBLK-W0111CN** Units : **µS/cm** Run ID: **WETLAB_100111B** Prep Date: **01/11/2010 11:57**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Specific Conductance (at 25°C)	ND	10								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method 120.1 / SM2510B / SW9050A**

File ID: Batch ID: **W0111CN** Analysis Date: **01/11/2010 11:51**

Sample ID: **LCS-W0111CN** Units : **µS/cm** Run ID: **WETLAB_100111B** Prep Date: **01/11/2010 11:51**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Specific Conductance (at 25°C)	1440	10	1410		102	98	102			

Comments:

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Date: *01-Mar-10*

QC Summary Report

Work Order: 10011101

Method Blank

Type: **MBLK** Test Code: **SM2340B**

File ID: **011310.B\027SMPL.D** Batch ID: **22369H** Analysis Date: **01/13/2010 13:37**

Sample ID: **MB-22369** Units : **mg/L** Run ID: **ICP/MS_100113E** Prep Date: **01/13/2010 21:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Magnesium (Mg)	ND	0.5								
Calcium (Ca)	ND	0.5								
Hardness, Calcium (calc as CaCO3)	ND	1.2								
Hardness, Total (calc as CaCO3)	ND	2.5								

Laboratory Control Spike

Type: **LCS** Test Code: **SM2340B**

File ID: **011310.B\028_LCS.D** Batch ID: **22369H** Analysis Date: **01/13/2010 13:43**

Sample ID: **LCS-22369** Units : **mg/L** Run ID: **ICP/MS_100113E** Prep Date: **01/13/2010 21:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Magnesium (Mg)	52.2	0.5	50		104	80	119			
Calcium (Ca)	51.5	0.5	50		103	81	115			
Hardness, Calcium (calc as CaCO3)	129	6.2	124.9		103	81	115			
Hardness, Total (calc as CaCO3)	343	13	331		104	80	119			

Sample Matrix Spike

Type: **MS** Test Code: **SM2340B**

File ID: **011310.B\036SMPL.D** Batch ID: **22369H** Analysis Date: **01/13/2010 14:26**

Sample ID: **10011101-01AMS** Units : **mg/L** Run ID: **ICP/MS_100113E** Prep Date: **01/13/2010 21:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Magnesium (Mg)	54.8	0.5	50	3.78	102	67	134			
Calcium (Ca)	147	0.5	50	110.4	72	63	135			
Hardness, Calcium (calc as CaCO3)	366	12	124.9	275.7	72	63	135			
Hardness, Total (calc as CaCO3)	591	25	331	291.2	91	63	135			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **SM2340B**

File ID: **011310.B\037SMPL.D** Batch ID: **22369H** Analysis Date: **01/13/2010 14:32**

Sample ID: **10011101-01AMSD** Units : **mg/L** Run ID: **ICP/MS_100113E** Prep Date: **01/13/2010 21:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Magnesium (Mg)	56	0.5	50	3.78	105	67	134	54.78	2.3(20)	
Calcium (Ca)	149	0.5	50	110.4	78	63	135	146.5	2.0(20)	
Hardness, Calcium (calc as CaCO3)	373	12	124.9	275.7	78	63	135	365.8	2.0(20)	
Hardness, Total (calc as CaCO3)	604	25	331	291.2	94	63	135	591.4	2.1(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Method Blank

Type: **MBLK** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **011310.B\027SMPL.D** Batch ID: **23369** Analysis Date: **01/13/2010 13:37**

Sample ID: **MB-22369** Units : **mg/L** Run ID: **ICP/MS_100113B** Prep Date: **01/13/2010 21:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	0.004								
Sodium (Na)	ND	0.5								
Potassium (K)	ND	0.5								
Silica (SiO2)	ND	1								
Vanadium (V)	ND	0.005								
Chromium (Cr)	ND	0.005								
Manganese (Mn)	ND	0.005								
Iron (Fe)	ND	0.3								
Cobalt (Co)	ND	0.005								
Nickel (Ni)	ND	0.01								
Copper (Cu)	ND	0.01								
Zinc (Zn)	ND	0.1								
Arsenic (As)	ND	0.005								
Selenium (Se)	ND	0.005								
Molybdenum (Mo)	ND	0.005								
Silver (Ag)	ND	0.005								
Cadmium (Cd)	ND	0.005								
Antimony (Sb)	ND	0.005								
Barium (Ba)	ND	0.005								
Mercury (Hg)	ND	0.001								
Thallium (Tl)	ND	0.002								
Lead (Pb)	ND	0.005								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **011310.B\028_LCS.D** Batch ID: **23369** Analysis Date: **01/13/2010 13:43**

Sample ID: **LCS-22369** Units : **mg/L** Run ID: **ICP/MS_100113B** Prep Date: **01/13/2010 21:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.255	0.004	0.25		102	82	126			
Sodium (Na)	51.9	0.5	50		104	80	118			
Potassium (K)	50.6	0.5	50		101	80	118			
Silica (SiO2)	53.2	5	50		106	80	120			
Vanadium (V)	0.253	0.005	0.25		101	82	124			
Chromium (Cr)	0.249	0.005	0.25		99	80	124			
Manganese (Mn)	2.41	0.005	2.5		96	83	120			
Iron (Fe)	50.2	0.3	50		100	83	119			
Cobalt (Co)	0.239	0.005	0.25		96	80	126			
Nickel (Ni)	0.241	0.01	0.25		96	83	123			
Copper (Cu)	0.245	0.01	0.25		98	85	123			
Zinc (Zn)	0.245	0.1	0.25		98	82	123			
Arsenic (As)	0.243	0.005	0.25		97	85	118			
Selenium (Se)	0.253	0.005	0.25		101	85	118			
Molybdenum (Mo)	0.246	0.005	0.25		98	85	119			
Silver (Ag)	0.256	0.005	0.25		102	79	118			
Cadmium (Cd)	0.261	0.005	0.25		104	85	121			
Antimony (Sb)	0.251	0.005	0.25		100	80	116			
Barium (Ba)	2.43	0.005	2.5		97	85	132			
Mercury (Hg)	0.00533	0.001	0.005		107	70	122			
Thallium (Tl)	0.233	0.002	0.25		93	77	119			
Lead (Pb)	0.25	0.005	0.25		100	85	120			

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **011310.B\036SMPL.D** Batch ID: **23369** Analysis Date: **01/13/2010 14:26**

Sample ID: **10011101-01AMS** Units : **mg/L** Run ID: **ICP/MS_100113B** Prep Date: **01/13/2010 21:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.241	0.004	0.25	0	96	70	133			
Sodium (Na)	1000	0.5	50	2059	-2100	61	135			M3
Potassium (K)	64.3	0.5	50	19.19	90	70	133			
Silica (SiO2)	94.6	10	50	38.85	112	70	130			
Vanadium (V)	0.227	0.005	0.25	0	91	70	134			
Chromium (Cr)	0.226	0.005	0.25	0	91	70	133			
Manganese (Mn)	2.44	0.005	2.5	0.08885	94	70	130			
Iron (Fe)	52.5	0.3	50	0.4896	104	70	130			
Cobalt (Co)	0.231	0.005	0.25	0	92	70	132			
Nickel (Ni)	0.237	0.01	0.25	0	95	70	132			
Copper (Cu)	0.258	0.01	0.25	0	103	70	131			
Zinc (Zn)	0.28	0.1	0.25	0	112	65	143			
Arsenic (As)	0.272	0.005	0.25	0.02315	99.6	70	130			
Selenium (Se)	0.23	0.005	0.25	0	92	70	131			
Molybdenum (Mo)	0.353	0.005	0.25	0.08211	108	65	140			
Silver (Ag)	0.269	0.005	0.25	0.01688	101	70	130			
Cadmium (Cd)	0.246	0.005	0.25	0	98	70	130			
Antimony (Sb)	0.241	0.005	0.25	0	96	70	130			
Barium (Ba)	2.58	0.005	2.5	0.05757	101	70	143			
Mercury (Hg)	0.00614	0.002	0.005	0	123	68	130			
Thallium (Tl)	0.232	0.002	0.25	0.005375	91	70	130			
Lead (Pb)	0.251	0.005	0.25	0	100	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **011310.B\037SMPL.D** Batch ID: **23369** Analysis Date: **01/13/2010 14:32**

Sample ID: **10011101-01AMSD** Units : **mg/L** Run ID: **ICP/MS_100113B** Prep Date: **01/13/2010 21:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.248	0.004	0.25	0	99	70	133	0.2411	2.7(20)	
Sodium (Na)	1020	0.5	50	2059	-2100	61	135	1000	1.9(20)	M3
Potassium (K)	65.4	0.5	50	19.19	92	70	133	64.34	1.6(20)	
Silica (SiO2)	93.5	10	50	38.85	109	70	130	94.61	1.1(20)	
Vanadium (V)	0.236	0.005	0.25	0	94	70	134	0.2273	3.6(20)	
Chromium (Cr)	0.231	0.005	0.25	0	92	70	133	0.2263	2.1(20)	
Manganese (Mn)	2.49	0.005	2.5	0.08885	96	70	130	2.438	2.1(20)	
Iron (Fe)	51	0.3	50	0.4896	101	70	130	52.46	2.8(20)	
Cobalt (Co)	0.234	0.005	0.25	0	94	70	132	0.2305	1.4(20)	
Nickel (Ni)	0.239	0.01	0.25	0	96	70	132	0.2372	0.9(20)	
Copper (Cu)	0.238	0.01	0.25	0	95	70	131	0.2583	8.3(20)	
Zinc (Zn)	0.252	0.1	0.25	0	101	65	143	0.2802	10.6(20)	
Arsenic (As)	0.268	0.005	0.25	0.02315	98	70	130	0.2722	1.5(20)	
Selenium (Se)	0.235	0.005	0.25	0	94	70	131	0.2301	2.2(20)	
Molybdenum (Mo)	0.333	0.005	0.25	0.08211	100	65	140	0.3526	5.7(20)	
Silver (Ag)	0.265	0.005	0.25	0.01688	99	70	130	0.2694	1.6(20)	
Cadmium (Cd)	0.253	0.005	0.25	0	101	70	130	0.2462	2.8(20)	
Antimony (Sb)	0.246	0.005	0.25	0	98	70	130	0.241	2.0(20)	
Barium (Ba)	2.66	0.005	2.5	0.05757	104	70	143	2.583	2.8(20)	
Mercury (Hg)	0.00629	0.002	0.005	0	126	68	130	0.006137	2.5(20)	
Thallium (Tl)	0.241	0.002	0.25	0.005375	94	70	130	0.2322	3.6(20)	
Lead (Pb)	0.254	0.005	0.25	0	102	70	130	0.2509	1.4(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Method Blank

Type: **MBLK** Test Code: **EPA Method SW6020 / SW6020A**
File ID: **011310.B\016SMPL.D** Batch ID: **23368** Analysis Date: **01/13/2010 12:35**
Sample ID: **MB-23368** Units : **mg/L** Run ID: **ICP/MS_100113A** Prep Date: **01/12/2010 13:51**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	ND	1								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW6020 / SW6020A**
File ID: **011310.B\017_LCS.D** Batch ID: **23368** Analysis Date: **01/13/2010 12:41**
Sample ID: **LCS-23368** Units : **mg/L** Run ID: **ICP/MS_100113A** Prep Date: **01/12/2010 13:51**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	5.22	1	5		104	76	120			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW6020 / SW6020A**
File ID: **011310.B\021SMPL.D** Batch ID: **23368** Analysis Date: **01/13/2010 13:03**
Sample ID: **10011101-02AMS** Units : **mg/L** Run ID: **ICP/MS_100113A** Prep Date: **01/12/2010 13:51**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	38.7	10	5	34.11	92	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW6020 / SW6020A**
File ID: **011310.B\022SMPL.D** Batch ID: **23368** Analysis Date: **01/13/2010 13:09**
Sample ID: **10011101-02AMSD** Units : **mg/L** Run ID: **ICP/MS_100113A** Prep Date: **01/12/2010 13:51**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Silica (SiO2), Dissolved	41.2	10	5	34.11	142	70	130	38.72	6.3(20)	M3

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.

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Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Laboratory Control Spike Type: **LCS** Test Code: **EPA Method 150.2 / SM4500HB / SW9040C**

File ID: Batch ID: **W0111PH** Analysis Date: **01/11/2010 10:54**

Sample ID: **LCS-W0111PH** Units : **pH Units** Run ID: **WETLAB_100111A** Prep Date: **01/11/2010 10:54**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
pH	5.05	1.7	5		101	90	110			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Method Blank

Type: **MBLK** Test Code: **EPA Method 365.3 / SM4500PE**
File ID: Batch ID: **W1113TP** Analysis Date: **11/13/2009 00:00**
Sample ID: **MBLK-W1113TP** Units : **mg/L** Run ID: **WETLAB_091113A** Prep Date: **11/13/2009 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	ND	0.1								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method 365.3 / SM4500PE**
File ID: Batch ID: **W1113TP** Analysis Date: **11/13/2009 00:00**
Sample ID: **LCS-W1113TP** Units : **mg/L** Run ID: **WETLAB_091113A** Prep Date: **11/13/2009 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	0.97	0.1	1		97	73	127			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method 365.3 / SM4500PE**
File ID: Batch ID: **W1113TP** Analysis Date: **11/13/2009 00:00**
Sample ID: **09110524-01AMS** Units : **mg/L** Run ID: **WETLAB_091113A** Prep Date: **11/13/2009 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	0.995	0.1	1	0	100	73	127			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method 365.3 / SM4500PE**
File ID: Batch ID: **W1113TP** Analysis Date: **11/13/2009 00:00**
Sample ID: **09110524-01AMSD** Units : **mg/L** Run ID: **WETLAB_091113A** Prep Date: **11/13/2009 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Phosphorus, Total (As P)	1.02	0.1	1	0	102	73	127	0.995	2.5(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Method Blank

File ID:
Sample ID: **MBLK-W0112SU**
Type: **MBLK** Test Code: **SM4500-S D**
Batch ID: **W0112SU** Analysis Date: **01/12/2010 16:52**
Units : **mg/L** Run ID: **WETLAB_100112C** Prep Date: **01/12/2010 16:52**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	ND	0.1								

Laboratory Control Spike

File ID:
Sample ID: **LCS-W0112SU**
Type: **LCS** Test Code: **SM4500-S D**
Batch ID: **W0112SU** Analysis Date: **01/12/2010 16:51**
Units : **mg/L** Run ID: **WETLAB_100112C** Prep Date: **01/12/2010 16:51**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	0.773	0.1	1		77	75	130			

Sample Matrix Spike

File ID:
Sample ID: **10010804-01AMS**
Type: **MS** Test Code: **SM4500-S D**
Batch ID: **W0112SU** Analysis Date: **01/12/2010 16:54**
Units : **mg/L** Run ID: **WETLAB_100112C** Prep Date: **01/12/2010 16:54**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	10.6	1	10	1.906	87	65	150			

Sample Matrix Spike Duplicate

File ID:
Sample ID: **10010804-01AMSD**
Type: **MSD** Test Code: **SM4500-S D**
Batch ID: **W0112SU** Analysis Date: **01/12/2010 16:54**
Units : **mg/L** Run ID: **WETLAB_100112C** Prep Date: **01/12/2010 16:54**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfide	10.5	1	10	1.906	86	65	150	10.59	1.2(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *25-Jan-10*

QC Summary Report

Work Order: 10011101

Method Blank

Type: **MBLK** Test Code: **SM2540C**

File ID:

Batch ID: **W0106DS** Analysis Date: **01/08/2010 00:00**

Sample ID: **MBLK-W0106DS** Units : **mg/L** Run ID: **WETLAB_100106D** Prep Date: **01/08/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Solids, Total Dissolved (TDS)	ND	10								

Laboratory Control Spike

Type: **LCS** Test Code: **SM2540C**

File ID:

Batch ID: **W0106DS** Analysis Date: **01/08/2010 00:00**

Sample ID: **LCS-W0106DS** Units : **mg/L** Run ID: **WETLAB_100106D** Prep Date: **01/08/2010 00:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Solids, Total Dissolved (TDS)	101	10	100		101	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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CLIENT: Alpha Analytical Inc
Project: WPK10011101
Sample Delivery Group: C10010318

Date: 22-Jan-10

CASE NARRATIVE

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

RADON IN AIR ANALYSIS
The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS
Data for PCBs, Atrazine and Simazine are reported from EPA 525.2. PCB data reported by ELI reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTIFICATIONS:
USEPA: WY00002, Radiochemical WY00937; FL-DOH NELAC: E87641, Radiochemical E871017; California: 02118CA; Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

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ANALYTICAL SUMMARY REPORT

January 22, 2010

Reyna Vallejo
Alpha Analytical Inc
255 Glendale Ave Ste 21
Sparks, NV 89431

Workorder No.: C10010318

Project Name: WPK10011101

Energy Laboratories, Inc. received the following 1 sample for Alpha Analytical Inc on 1/12/2010 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C10010318-001	TW-2-01-08-10-Zone 3&4 Comb End	01/08/10 08:10	01/12/10	Aqueous	Gross Alpha, Gross Beta

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By:

Stephanie D. Waldrop
Reporting Supervisor

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LABORATORY ANALYTICAL REPORT

Client: Alpha Analytical Inc
Project: WPK10011101
Lab ID: C10010318-001
Client Sample ID: TW-2-01-08-10-Zone 3&4 Comb End

Report Date: 01/22/10
Collection Date: 01/08/10 08:10
DateReceived: 01/12/10
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Gross Alpha	-10	pCi/L	U			E900.0	01/21/10 19:58 / cgr
Gross Alpha precision (±)	10.2	pCi/L				E900.0	01/21/10 19:58 / cgr
Gross Alpha MDC	18.8	pCi/L				E900.0	01/21/10 19:58 / cgr

- Method E900.0 is equivalent to SW9310.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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QA/QC Summary Report

Client: Alpha Analytical Inc
Project: WPK10011101

Report Date: 01/22/10
Work Order: C10010318

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0									Batch: GrAB-0817
Sample ID: MB-GrAB-0817	Method Blank				Run: G5000W_100115A				01/21/10 07:34
Gross Alpha	0.3	pCi/L							U
Gross Alpha precision (±)	0.8	pCi/L							
Gross Alpha MDC	0.8	pCi/L							
Sample ID: Th230-GrAB-0817	Laboratory Control Sample				Run: G5000W_100115A				01/21/10 07:34
Gross Alpha	120	pCi/L		116	70	130			
Sample ID: C10010097-001DMS	Sample Matrix Spike				Run: G5000W_100115A				01/21/10 19:58
Gross Alpha	216	pCi/L		138	70	130			S
- Spike response is outside of the acceptance range for this analysis. Since the LCS and the RPD for the MS MSD pair are acceptable, the response is considered to be matrix related. The batch is approved.									
Sample ID: C10010097-001DMSD	Sample Matrix Spike Duplicate				Run: G5000W_100115A				01/21/10 19:58
Gross Alpha	232	pCi/L		154	70	130	7.2	15.3	S

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

Work Order Information

AMENDED #2

WPK10011101

Monday, March 01, 2010 10:13 AM

Amended 1/11/10 @ 10:44: Per phone conversation w/ Ed 1/11/10 @ 10:48, deleted NO3 from sample -01A due to it being outside of hold time, and added CAM 17 to sample -02A. EA Amended 3/1/10 @ 10:06: Per Ed via Reyna added Calcium Hardness to samples -01A and -02A. EA

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

AMENDED #2

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10011101

Report Due By : 5:00 PM On : 13-Jan-2010

Client:

Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co

EDD Required : No

Sampled by : Terence Robertson

PO :

Client's COC # : none Job : 52004617

Cooler Temp	Samples Received	Date Printed
4 °C	09-Jan-2010	01-Mar-2010

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	300_0(A)_W	300_0(B)_W	300_0(C)_W	ALKALINITY_W	AMMONIA_W	CONDUCTIVITY	G_ALPHABETA_W	HARDNESS_W	Sample Remarks
WPK10011101-01A	TW-2-01-06-10-Zone 3&4 Comb Mid	AQ	01/06/10 19:10	5	0	2	CA	CA	CA	CA		CA		CA	
WPK10011101-02A	TW-2-01-08-10-Zone 3&4 Comb End	AQ	01/08/10 08:10	10	4	2	CA	CA	CA	CA	NH3	CA	Gross Alpha	CA	

Requested Tests

Comments: 48 Hour TAT, per Tara's phone conversation w/ Terence 1/8/10. Security seals intact. Melted ice. Saturday delivery. Samples received 1/9/10 kept cold and secure until login on 1/11/10. Gross Alpha polys rec'd non-preserved, polys preserved w/ HNO3 in lab. : Gros Alpha subbed to Energy Labs on 10 day TAT Due 1/25/10. NO3 & PO4 was received outside of the 48 hour hold time for an unpreserved poly therefore the H2SO4 poly will be used. H2SO4 bottle was not provided for -01A therefore split occurred 1/11 @ 8:54.

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Adcox	Elizabeth Adcox	Alpha Analytical, Inc.	3-1-10 10:07

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

AMENDED #2

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10011101

Report Due By : 5:00 PM On : 13-Jan-2010

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co

EDD Required : **No**

Sampled by : Terence Robertson

PO :

Client's COC # : none Job : 52004617

Cooler Temp	Samples Received	Date Printed
4 °C	09-Jan-2010	**01-Mar-2010**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	METALS_AQ	METALS_DS	PH_W	PHOSPHORUS_W	SULFIDE_W	TDS_W	Sample Remarks
WPK10011101-01A	TW-2-01-06-10-Zone 3&4 Comb Mid	AQ	01/06/10 19:10	5	0	2	CA		CA			CA	
WPK10011101-02A	TW-2-01-08-10-Zone 3&4 Comb End	AQ	01/08/10 08:10	10	4	2	CAM_17_FTC	SiO2	CA	Total	Sulfide	CA	

Comments: 48 Hour TAT, per Tara's phone conversation w/ Terence 1/8/10. Security seals intact. Melted ice. Saturday delivery. Samples received 1/9/10 kept cold and secure until login on 1/11/10. Gross Alpha polys rec'd non-preserved, polys preserved w/ HNO3 in lab. : Gros Alpha subbed to Energy Labs on 10 day TAT Due 1/25/10. NO3 & PO4 was received outside of the 48 hour hold time for an unpreserved poly therefore the H2SO4 poly will be used. H2SO4 bottle was not provided for -01A therefore split occurred 1/11 @ 8:54.

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Adcox	Elizabeth Adcox	Alpha Analytical, Inc.	3-1-10 10:07

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

AMENDED

RUSH!

Work Order Information

WPK10011101

Monday, January 11, 2010 10:55 AM

Amended 1/11/10 @ 10:44: Per phone conversation w/ Ed 1/11/10 @ 10:48, deleted NO3 from sample -01A due to it being outside of hold time, and added CAM 17 to sample -02A. EA

Billing Information :

CHAIN-OF-CUSTODY RECORD

AMENDED

CA RUSH!

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10011101

Report Due By : 5:00 PM On : 13-Jan-2010

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co

EDD Required : No

Sampled by : Terence Robertson

PO :

Client's COC # : none Job : 52004617

Cooler Temp	Samples Received	Date Printed
4 °C	09-Jan-2010	11-Jan-2010

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	300_0(A)_W	300_0(B)_W	300_0(C)_W	ALKALINITY_W	AMMONIA_W	CONDUCTIVITY	G_ALPHABETA_W	HARDNESS_W	Sample Remarks
							Requested Tests								
WPK10011101-01A	TW-2-01-06-10-Zone 3&4 Comb Mid	AQ	01/06/10 19:10	5	0	2	CA	CA	CA	CA		CA		CA	
WPK10011101-02A	TW-2-01-08-10-Zone 3&4 Comb End	AQ	01/08/10 08:10	10	4	2	CA	CA	CA	CA	NH3	CA	Gross Alpha	CA	

Comments: 48 Hour TAT, per Tara's phone conversation w/ Terence 1/8/10. Security seals intact. Melted ice. Saturday delivery. Samples received 1/9/10 kept cold and secure until login on 1/11/10. Gross Alpha polys rec'd non-preserved, polys preserved w/ HNO3 in lab. : Gros Alpha subbed to Energy Labs on 10 day TAT Due 1/25/10. NO3 & PO4 was received outside of the 48 hour hold time for an unpreserved poly therefore the H2SO4 poly will be used. H2SO4 bottle was not provided for -01A therefore split occurred 1/11 @ 8:54.

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Adcox	Elizabeth Adcox	Alpha Analytical, Inc.	1-11-10 1057

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10011101

Report Due By : 5:00 PM On : 13-Jan-2010

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co

EDD Required : No

Sampled by : Terence Robertson

PO :

Client's COC # : none Job : 52004617

Cooler Temp	Samples Received	Date Printed
4 °C	09-Jan-2010	11-Jan-2010

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	METALS_AQ	METALS_DS	PH_W	PHOSPHORUS_W	SULFIDE_W	TDS			Sample Remarks
WPK10011101-01A	TW-2-01-06-10-Zone 3&4 Comb Mid	AQ	01/06/10 19:10	5	0	2	CA		CA			CA			
WPK10011101-02A	TW-2-01-08-10-Zone 3&4 Comb End	AQ	01/08/10 08:10	10	4	2	CAM_17_TTLC	SiO2	CA	Total	Sulfide	CA			

Comments: 48 Hour TAT, per Tara's phone conversation w/ Terence 1/8/10. Security seals intact. Melted ice. Saturday delivery. Samples received 1/9/10 kept cold and secure until login on 1/11/10. Gross Alpha polys rec'd non-preserved, polys preserved w/ HNO3 in lab. : Gros Alpha subbed to Energy Labs on 10 day TAT Due 1/25/10. NO3 & PO4 was received outside of the 48 hour hold time for an unpreserved poly therefore the H2SO4 poly will be used. H2SO4 bottle was not provided for -01A therefore split occurred 1/11 @ 8:54.

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Adcox	Elizabeth Adcox	Alpha Analytical, Inc.	1-11-10 1057

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
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Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA RUSH!

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10011101

Report Due By : 5:00 PM On : 13-Jan-2010

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com

EDD Required : **No**

Sampled by : Terence Robertson

PO :

Client's COC # : none Job : 52004617

Cooler Temp	Samples Received	Date Printed
4 °C	09-Jan-2010	11-Jan-2010

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	300_0(A)_W	300_0(B)_W	300_0(C)_W	ALKALINITY_W	AMMONIA_W	CONDUCTIVITY	G_ALPHABETA_W	HARDNESS_W	Sample Remarks
							Requested Tests								
WPK10011101-01A	TW-2-01-06-10-Zone 3&4 Comb Mid	AQ	01/06/10 19:10	5	0	2	CA	CA	CA	CA		CA		CA	
WPK10011101-02A	TW-2-01-08-10-Zone 3&4 Comb End	AQ	01/08/10 08:10	10	4	2	CA	CA	CA	CA	NH3	CA	Gross Alpha	CA	

Comments: 48 Hour TAT, per Tara's phone conversation w/ Terence 1/8/10. Security seals intact. Melted ice. Saturday delivery. Samples received 1/9/10 kept cold and secure until login on 1/11/10. Gross Alpha polys rec'd non-preserved, polys preserved w/ HNO3 in lab. : Gros Alpha subbed to Energy Labs on 10 day TAT Due 1/25/10. NO3 & PO4 was received outside of the 48 hour hold time for an unpreserved poly therefore the H2SO4 poly will be used. H2SO4 bottle was not provided for -01A therefore split occurred 1/11 @ 8:54.

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Adcox	Elizabeth Adcox	Alpha Analytical, Inc.	1-11-10 9:20

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Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : WPK10011101

Report Due By : 5:00 PM On : 13-Jan-2010

Client:
Worley Parsons Komex
2330 E. Bidwell St.
#150
Folsom, CA 95630

Report Attention	Phone Number	EMail Address
Terence Robertson	(916) 817-3963 x	terence.robertson@worleyparsons.co
Mike Tietze	(916) 817-3931 x	mike.tietze@worleyparsons.com
Ed Baquerizo	(916) 627-0048 x	ed.baquerizo@worleyparsons.com

EDD Required : No

Sampled by : Terence Robertson

PO :

Client's COC # : none Job : 52004617

Cooler Temp	Samples Received	Date Printed
4 °C	09-Jan-2010	11-Jan-2010

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	METALS_AQ	METALS_DS	PH_W	PHOSPHORUS_W	SULFIDE_W	TDS			Sample Remarks
WPK10011101-01A	TW-2-01-08-10-Zone 3&4 Comb Mid	AQ	01/06/10 19:10	5	0	2	CA		CA			CA			
WPK10011101-02A	TW-2-01-08-10-Zone 3&4 Comb End	AQ	01/08/10 08:10	10	4	2	CA	SiO2	CA	Total	Sulfide	CA			

Comments: 48 Hour TAT, per Tara's phone conversation w/ Terence 1/8/10. Security seals intact. Melted ice. Saturday delivery. Samples received 1/9/10 kept cold and secure until login on 1/11/10. Gross Alpha polys rec'd non-preserved, polys preserved w/ HNO3 in lab. : Gros Alpha subbed to Energy Labs on 10 day TAT Due 1/25/10. NO3 & PO4 was received outside of the 48 hour hold time for an unpreserved poly therefore the H2SO4 poly will be used. H2SO4 bottle was not provided for -01A therefore split occurred 1/11 @ 8:54.

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Adcox	Elizabeth Adcox	Alpha Analytical, Inc.	1-11-10 9:20

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
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Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

CHAIN OF CUSTODY RECORD

Page 1 Of 1

CLIENT NAME: WorleyParsons	PROJECT: Blythe TW-2
	PWS ID: -52004617
	PWS Name:
ADDRESS: 2330 E. Bidwell St. #150 Folsom CA 95603	PHONE: 916-817-3920
	FAX: 916-983-1935
	EMAIL: mike.tietze@worleyparsons.c
PROJECT MANAGER Ed	SAMPLER Terence Robertson

ANALYSES REQUESTED

LAB ID# (For lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	SAMPLE POINT I.D. / NAME	# OF CONT.	General Minerals	Anions	Reactive Silical	TDS	Gross Alpha	Sulfide	Total Phosphate				COMMENTS
WPK10011101-01	01/06/10	7:10 PM	GW	TW-2-01-06-10-Zone 3&4 Comb Mid	5	X			X							Hold The remainder of the
-02	01/08/10	8:10 AM	GW	TW-2-01-08-10-Zone 3&4 Comb End	14	X	X	X	X	X	X	X				sample bottles until further notice
																* Calcium Hardness * Please
																check

SPECIAL HANDLING

- [x] Same Day Rush 150%
- [ ] 24 Hour Rush 100%
- [ ] 48-72 Hour Rush 75%
- [ ] 4 - 5 Day Rush 30%
- [ ] Rush Extractions 50%
- [ ] 10 - 15 Business Days
- [ ] QA/QC Data Package

Method of Shipment:

RELINQUISHED BY	DATE / TIME	RECEIVED BY
TERENCE Robertson TR	1-8-10 3:10 PM	
RELINQUISHED BY	DATE / TIME	RECEIVED BY
	1-11-10 9:20	Elizabeth Adcox
RELINQUISHED BY	DATE / TIME	RECEIVED BY

SAMPLE CONDITION:

Actual Temperature: 4°

Received On Ice melted (Y) / N

Preserved (Y) / N

Evidence Seals Present (Y) / N

Container Attacked Y / (N)

Preserved at Lab (Y) / N

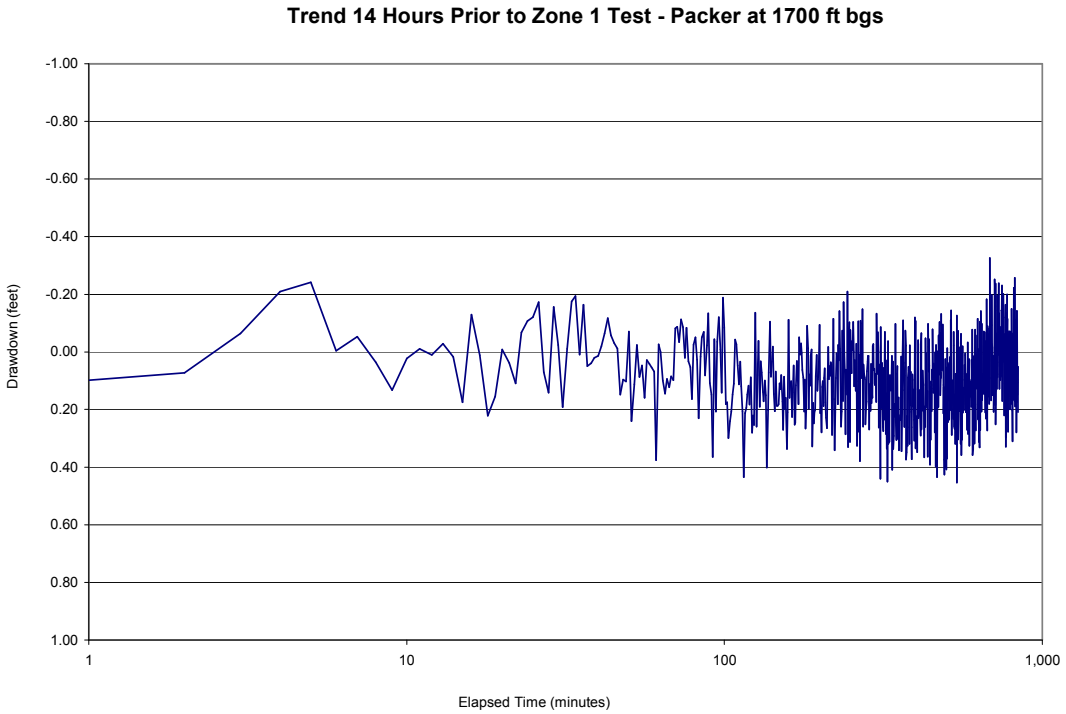
SAMPLE TYPE CODE:

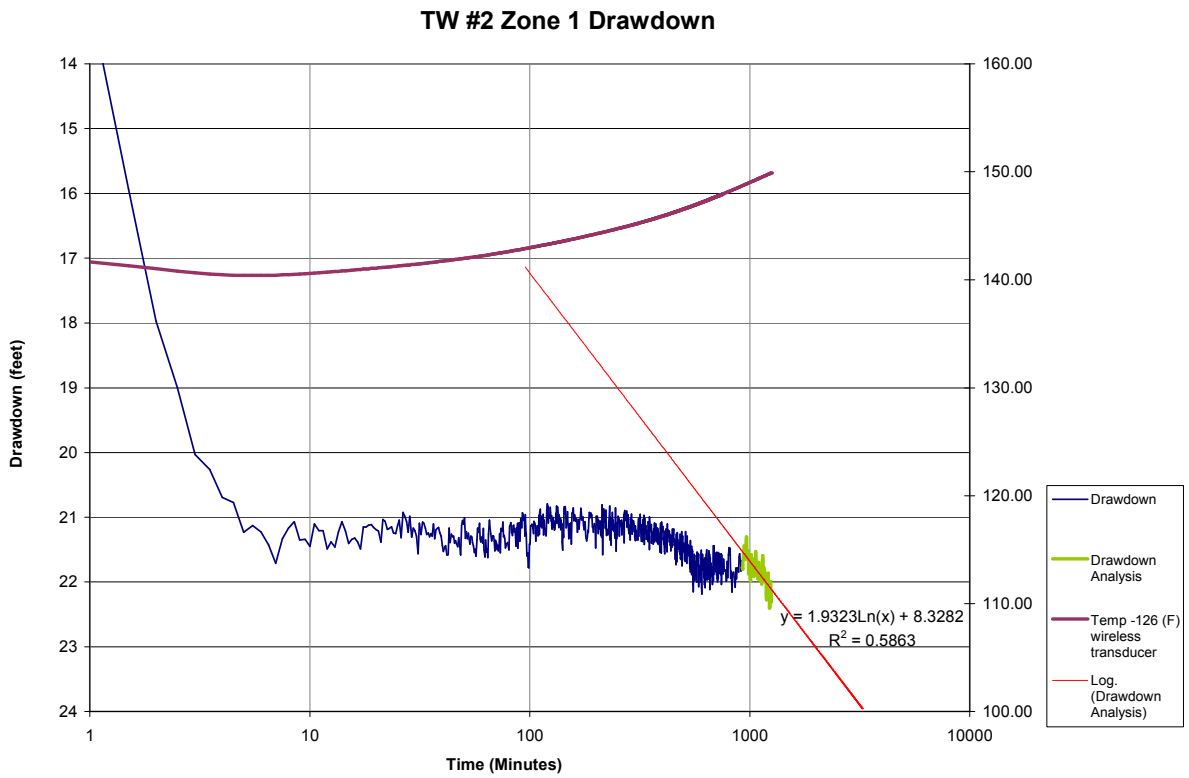
DW - Drinking Water
SW - Surface Water
RW - Raw Water
GW - Groundwater
RW - Recreational
TW - Treated Water

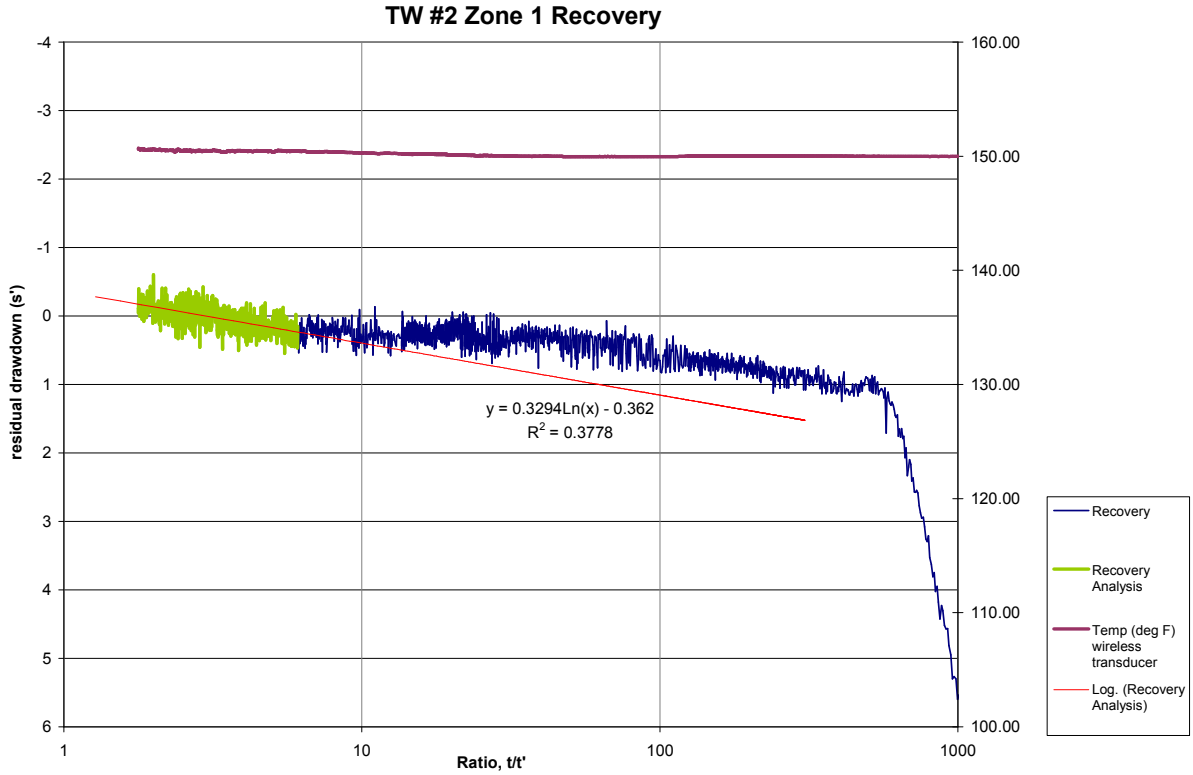
SPECIAL REQUIREMENTS / BILLING INFORMATION [ ] check box if EDT is required

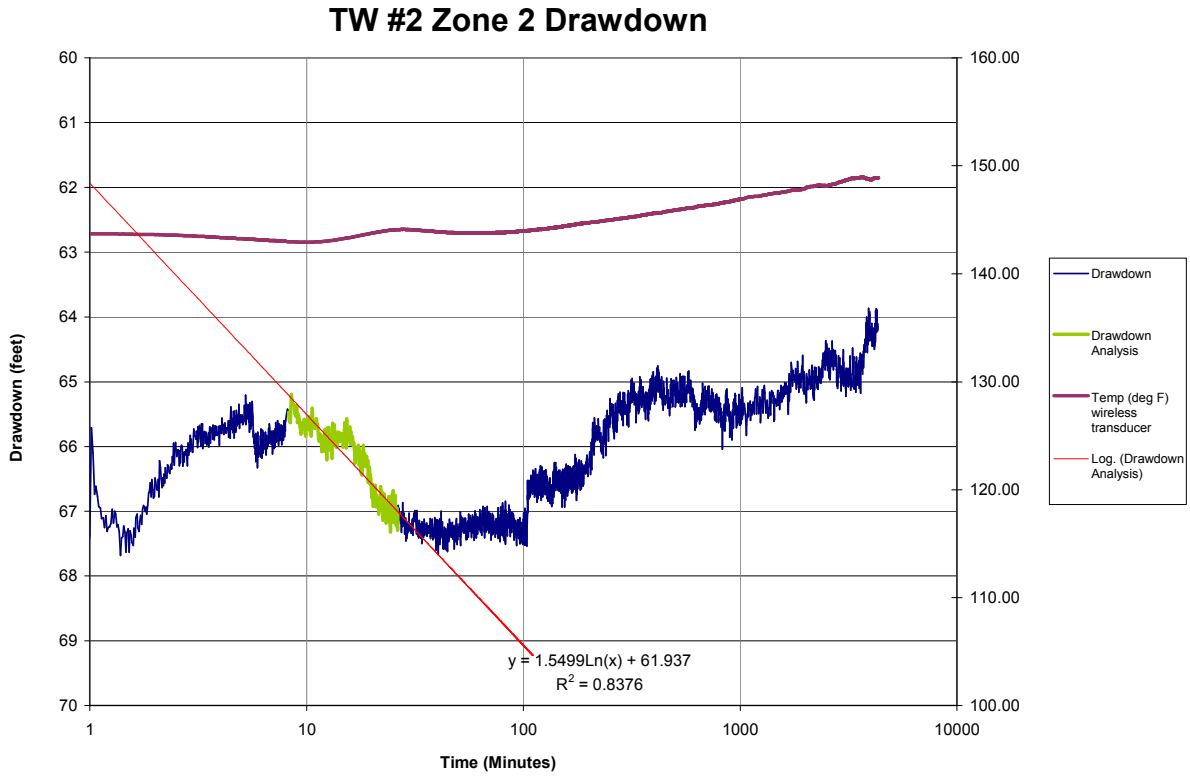
COC version 042707

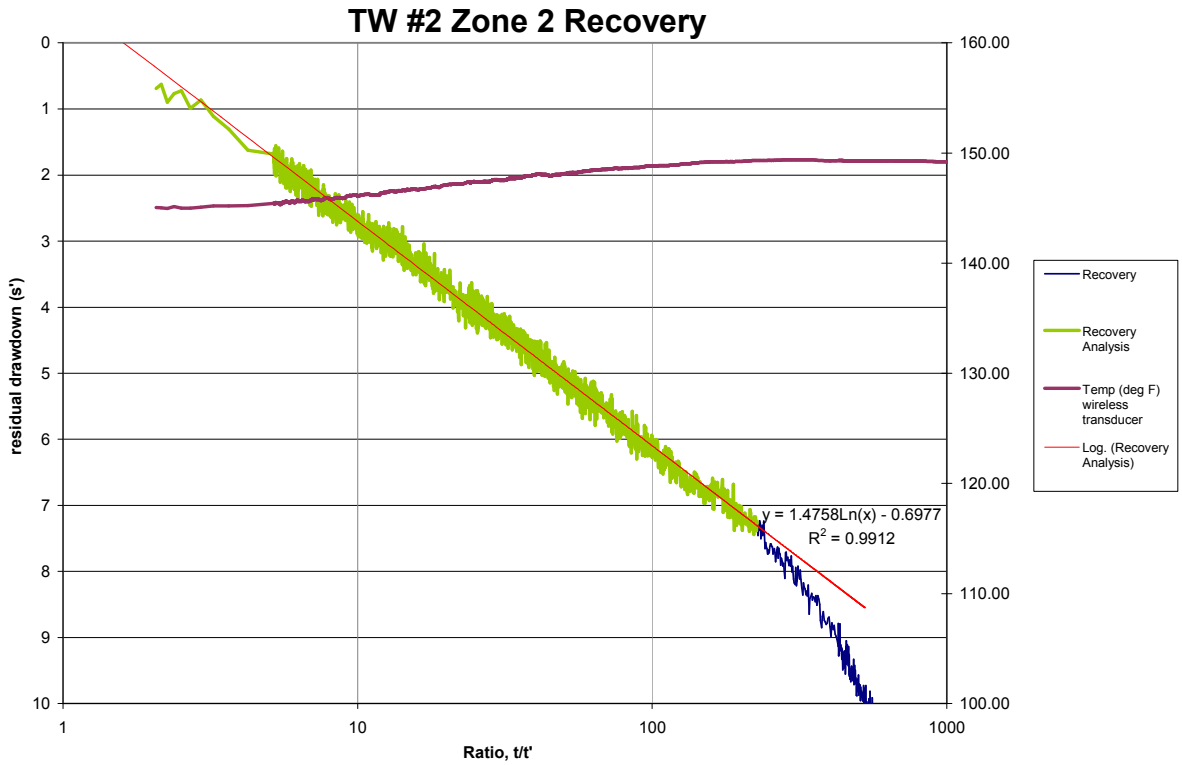
ATTACHMENT 7: PUMPING TEST INTERPRETATION

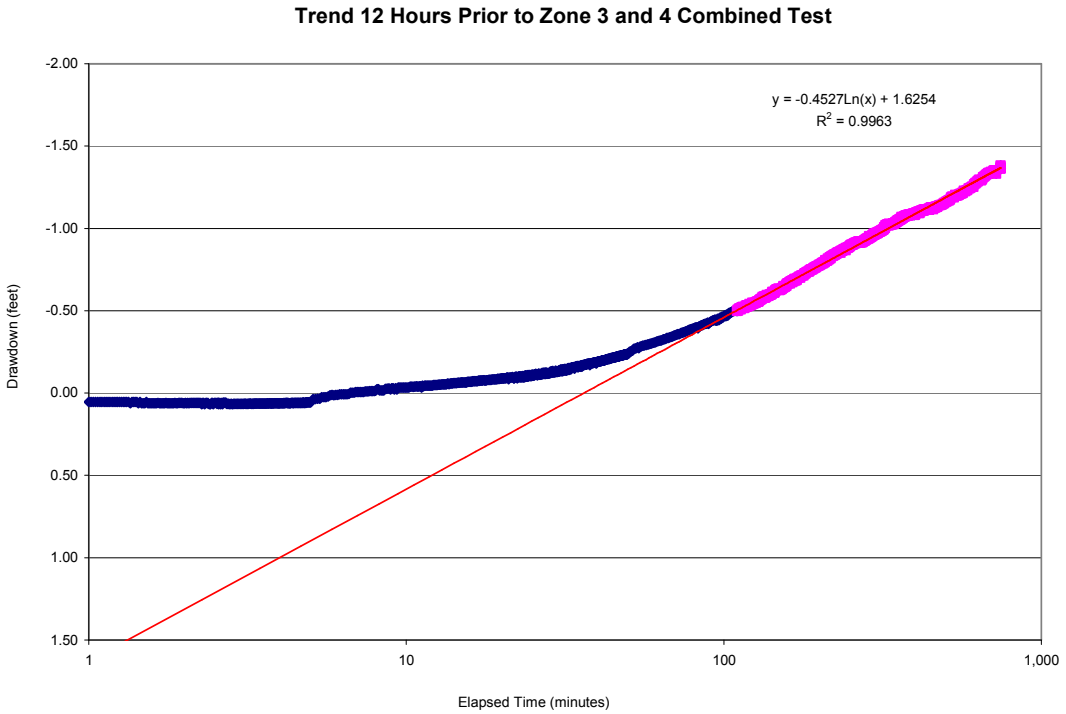

Trend 14 Hours Prior to Zone 1 Test - Packer at 1700 ft bgs
-1.00
-0.80
-0.60
-0.40
-0.20
0.00
0.20
0.40
0.60
0.80
1.00
Drawdown (feet)
1
10
100
1,000
Elapsed Time (minutes)

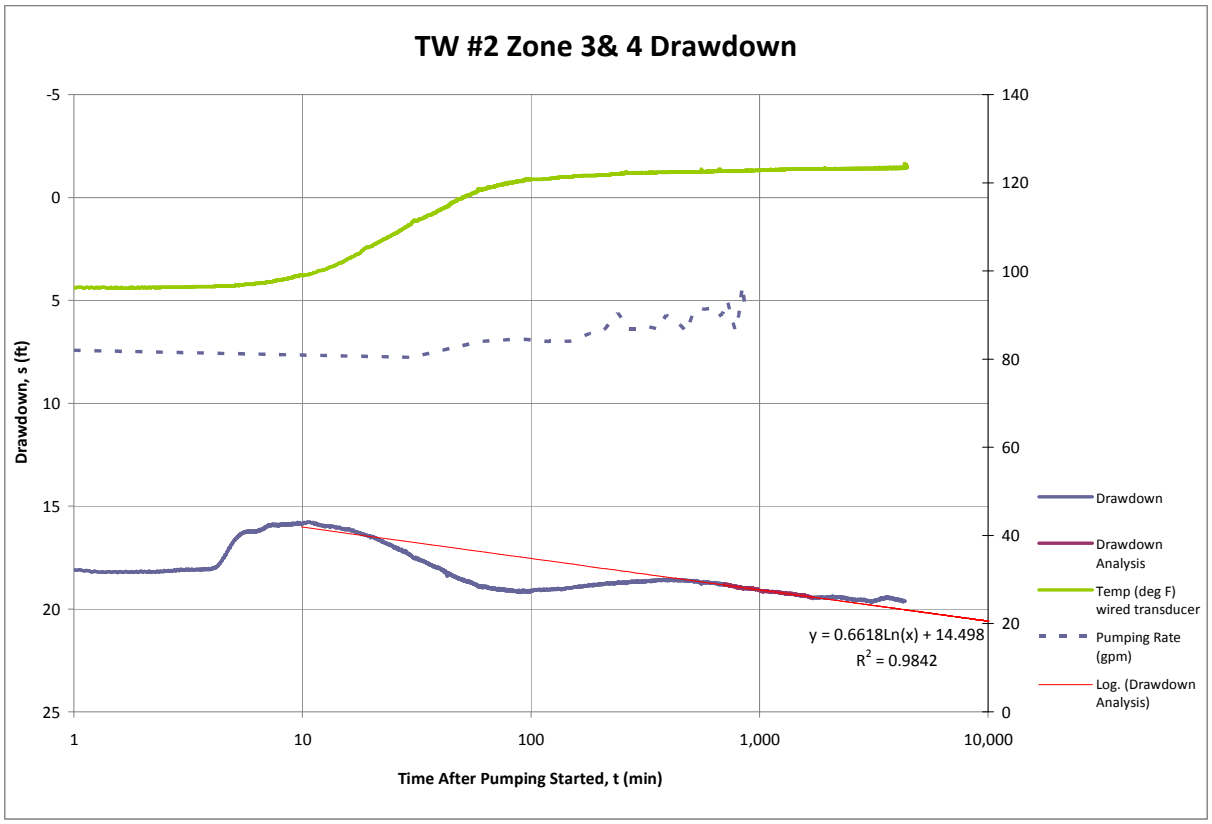

TW #2 Zone 1 Drawdown
Drawdown (feet)
Time (Minutes)
y = 1.9323Ln(x) + 8.3282
R2 = 0.5863
Drawdown
Drawdown Analysis
Temp -126 (F) wireless transducer
Log. (Drawdown Analysis)

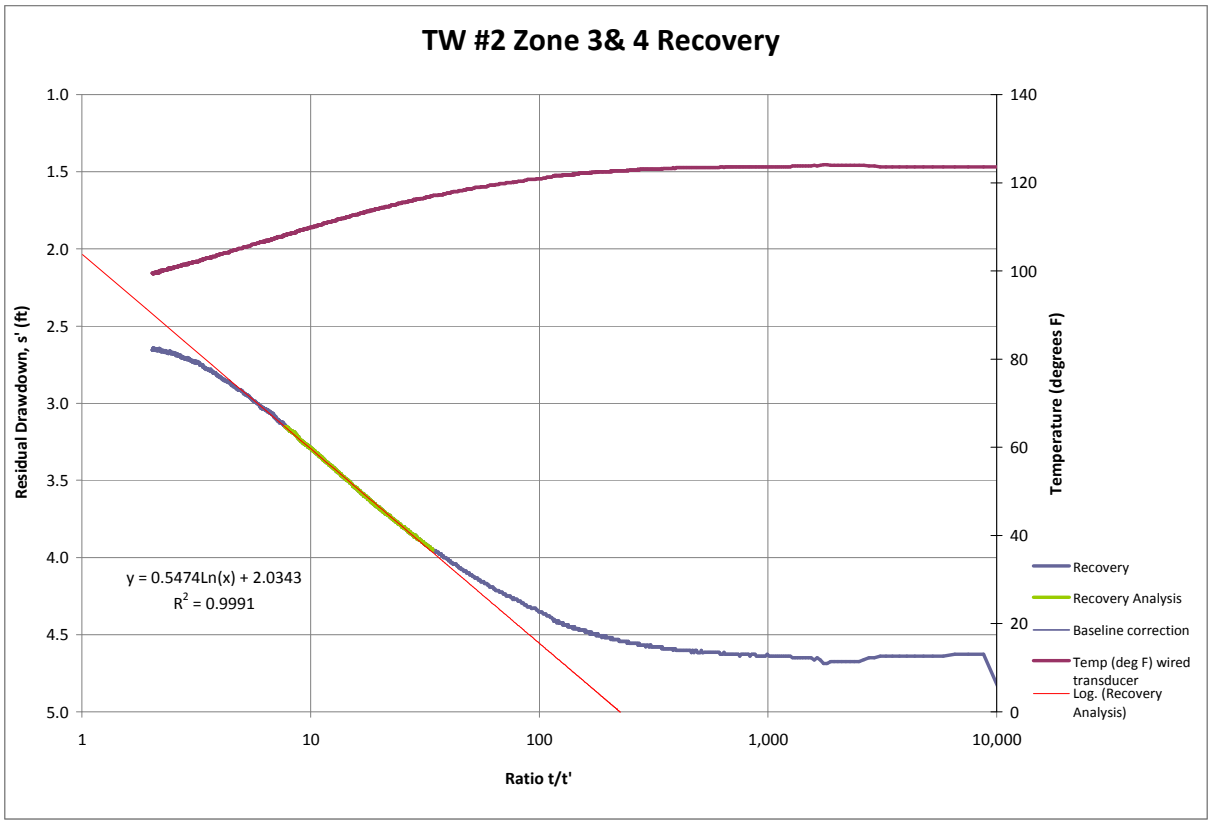

TW #2 Zone 1 Recovery
residual drawdown (s')
Ratio, t/t'
y = 0.3294Ln(x) - 0.362
R2 = 0.3778
Recovery
Recovery Analysis
Temp (deg F) wireless transducer
Log. (Recovery Analysis)


TW #2 Zone 2 Drawdown
Drawdown (feet)
Time (Minutes)
y = 1.5499Ln(x) + 61.937
R2 = 0.8376
Drawdown
Drawdown Analysis
Temp (deg F) wireless transducer
Log. (Drawdown Analysis)


TW #2 Zone 2 Recovery
residual drawdown (s')
Ratio, t/t'
y = 1.4758Ln(x) - 0.6977
R2 = 0.9912
Recovery
Recovery Analysis
Temp (deg F) wireless transducer
Log. (Recovery Analysis)


Trend 12 Hours Prior to Zone 3 and 4 Combined Test
y = -0.4527Ln(x) + 1.6254
R2 = 0.9963
-2.00
-1.50
-1.00
-0.50
0.00
0.50
1.00
1.50
Drawdown (feet)
1
10
100
1,000
Elapsed Time (minutes)


TW #2 Zone 3& 4 Drawdown
Drawdown, s (ft)
-5
0
5
10
15
20
25
140
120
100
80
60
40
20
0
1
10
100
1,000
10,000
Time After Pumping Started, t (min)
y = 0.6618Ln(x) + 14.498
R2 = 0.9842
Drawdown
Drawdown Analysis
Temp (deg F) wired transducer
Pumping Rate (gpm)
Log. (Drawdown Analysis)


TW #2 Zone 3& 4 Recovery
Residual Drawdown, s' (ft)
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
Temperature (degrees F)
140
120
100
80
60
40
20
0
1
10
100
1,000
10,000
Ratio t/t'
y = 0.5474Ln(x) + 2.0343
R2 = 0.9991
Recovery
Recovery Analysis
Baseline correction
Temp (deg F) wired transducer
Log. (Recovery Analysis)