

Appendix E

Survey Report

McGEE SURVEYING CONSULTING

5290 Overpass Road, Ste#107 - Santa Barbara, CA 93111
Telephone 805-964-3520

May 23, 2014

Mohsen Mehran, Ph.D.
Principal
Rubicon Engineering Corporation
12821 Newport Ave.
Tustin, CA 92780

Re: Monitoring Well Control Survey for the Rancho Malibu Project at Malibu, CA

On May 19, 2014, I performed a GNSS survey to determine horizontal positions and elevations on 5 monitoring wells referred to as RM1 through RM5 listed on the attached Coordinate List. The positions are based on the National Geodetic Survey (NGS) HPGN Station MALIBU referred to by its NGS PID "EW9594". EW9594 was fixed for horizontal position which agreed north 0.06 by east 0.00 feet with an NGS OPUS solution on RM2 and RM4. EW9594 was fixed for elevation which was found in good agreement with nearby NGS Benchmarks on two prior control surveys.

Coordinates are California State Plane Coordinates Zone 5 based on the North American Datum of 1983, NAD 83(2011) 2010.00 Epoch.. The average Convergence Angle = -0-24-00 and the Combined Grid Factor = 0.99999484. Elevations are based on the North American Vertical Datum of 1988 (NAVD 88). Units are in feet.

The monitoring wells were located with static GNSS utilizing three Leica GS15 geodetic receivers. The well elevations and positions are at a purple paint mark on the top north side of a 2 inch PVC pipe inside a flush 9" steel well casing flush with a 2' x 2' concrete pad.

Please find attached the coordinate list. If you have any questions do not hesitate to call; otherwise, I appreciate the opportunity to be of service.

Sincerely,



Michael R. McGee, PLS3945



McGEE SURVEYING CONSULTING

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Telephone 805-964-3520 - Email: michael@sbcoxmail.com

COORDINATE LIST MONITORING WELL SURVEY

at

Ranch Malibu Project, Malibu, CA

for

Rubicon Engineering Corporation

Irvine, CA

by

McGee Surveying Consulting

Santa Barbara, CA

May 23, 2014

NAD83(2011) 2010.00 Epoch California State Plane Coordinate Zone 5

North American Vertical Datum of 1988 Orthometric Heights

VERTICAL & HORIZONTAL CONTROL

POINT#	STATE PLANE		NAVD88	DESCRIPTION
	NORTH (Y) ft	EAST (X) ft	ELEV.	
EW9594	1835203.94	6349015.22	194.23	NGS Station Malibu
CP900	1836185.94	6349138.61	226.90	Found Local Control: hub&tack

MONITORING WELLS

ID	North (Y) ft	East (X) ft	Elev.	Description	Ground Elev.
RM1	1836935.11	6348764.00	225.06	N edge 2" PVC	225.1
RM2	1835982.84	6348817.26	216.63	N edge 2" PVC	217.3
RM3	1836215.18	6349221.17	225.48	N edge 2" PVC	226.1
RM4	1836455.43	6349495.73	223.62	N edge 2" PVC	223.8
RM5	1836045.74	6349750.67	172.71	N edge 2" PVC	173.2