Kula Pipe line
Sec 6 thru
Haleakala Ranch in
Kaliolinui & Pulehumii

Copy furnished Supt. Public Works
October 24, 1910

File in Carton 13.

Honolulu, T. H., ...August 5, 1910.................

Kula Pipe Line.

Description of Six Inch Galvanized Pipe Line

through Haleakala Ranch,

Kalialinui and Pulehunui, Maui.

Part I Beginning at junction of 12 inch wooden stave pipe, the 4 inch galvanized pipe to Makawao and the 6 inch galvanized pipe to Kula, from which a △ on a ledge of rocks about midway between eucalyptus Groves Nos. 1 and 2 is by true azimuth 218° 59' 192.3 feet, elevation 4128 feet; from said ▲ Government Survey Trig. Station "Puu Nianiau" is by true azimuth 313° 28' 30" 14079.0 feet, thence along general line of pipe, the direct azimuths and distances being:

1.   68° 35'   78.7 feet;

2.   60° 46'   75.9 feet;

3.   87° 10'   243.3 feet;

4.   105° 07'   145.7 feet to edge of eucalyptus Grove No. 2;

5.   113° 45'   120.3 feet through Grove No. 2;

6.   62° 08'   129.8 feet through Grove No. 2;

7.   19° 40'   175.4 feet through Grove No. 2;

8.   20° 43'   169.0 feet through Grove No. 2 and across gully to a ridge;

9.   18° 33'   343.4 feet crossing deep gulch;

10.   20° 30'   94.0 feet across gully;

11.   74° 00'   155.7 feet along slope;

12.   86° 46'   210.1 feet along slope;

13.   52° 36'   93.3 feet along slope;

14.   23° 20'   217.4 feet along slope;

15.   42° 31'   78.9 feet across small gully;

16.   42° 39'   323.5 feet across sway;

17.   46° 29'   258.2 feet crossing small gully;

18.   52° 15'   591.8 feet crossing deep gulch, from this point
                     Government Survey Trig. Station "Pulehu"
                     is by true azimuth 33° 09' 7164.1 feet
                     and "Kalialinui" 326° 13' 1718.4 feet;

19.   21° 29'   328.5 feet across flat;

20.   24° 41'   154.2 feet across flat and about 100 feet makai of the
                     water trough;

21.   27° 27'   931.6 feet crossing sway;

22.   23° 59'   53.5 feet along slope;

23.   11° 56'   500.4 feet along slope and across a small gulch;

24. 351° 10'   233.6 feet along slope;

25.   8° 31'   97.8 feet across small gulch;

26.   10° 42'   162.8 feet along slope;

27.   52° 07'   261.6 feet along slope;

28.   7° 18'   114.0 feet along slope;

29.   2° 15'   329.3 feet across sway and along slope;

30.   12° 51'   73.0 feet along slope to East edge of Waiale Gulch,
                     from which point Government Survey Trig.
                     Station "Waiale" is by true azimuth
                     41° 04' 402.8 feet;

31.   48° 47'   268.0 feet across Waiale Gulch; .

32.   85° 30'   87.3 feet along slope;

33. 77° 54'   223.3 feet along slope;

34. 56° 43'   26.4 feet along slope;

35. ‐30° 18'   877.0 feet along slope and across sway to ridge;

36. 23° 08'   356.4 feet across sway;

37. 24° 50'   291.0 feet across sway to ridge;

38. 50° 34'   273.1 feet across sway to ridge;

39. 60° 46' 1295.4 feet across sway, flat, ridge and gulch to ridge;

40. 44° 57'   30.1 feet along slope;

41. 29° 36'   172.7 feet along slope;

42. 44° 19'   331.3 feet across sway, from this point Government Sur‐
                         vey Trig. Station "Pulehu" (2) is by true
                         azimuth 1° 17'   227.3 feet;

43. 50° 01'   216.7 feet along slope;

44. 16° 53'   279.7 feet across sway;

45. 22° 01'   253.1 feet across sway;

46. 29° 31'   98.7 feet along slope;

47. 26° 39'   200.5 feet along slope to boundary of Grant 3515 to
                         Haleakala Ranch and Omaopio, from this
                         point Government Survey Trig. Station
                         "Pulehu" (2) is by true azimuth 214° 51'
                         831.7 feet, "Puu Pane" 146° 04' and the
                         Kula Church Spire 68° 12' ;

Part II. Crossing R. P. 4015 to Ali on the following azimuths and distances:

                16° 14'   152.8 feet along slope;
                53° 50'   130.5 feet along slope;
                24° 59'   327.4 feet across sway;
                13° 46'   168.9 feet along slope;
                30° 39'   229.3 feet to boundary of Omaopio and Pulehunui, a
                                   large boulder in Laumaia Gulch;

Part III Beginning again at this point and running:

48. 30° 39'   222.0 feet;

49. 37° 43'   177.5 feet along slope;

50.   33° 00'   194.4 feet along slope;

51. ‚37° 14'   219.3 feet along slope;

52.   26° 50' 1753.3 feet crossing two sways and a ridge;

53.   25° 01'   264.8 feet across sway to ridge;

54.   5° 11'   194.5 feet along slope;

55.   42° 22'   167.2 feet to boundary of Pulehunui and Pulehuiki.

FRED E. HARVEY

Engineer in Charge,
    Kula Pipe Line.

Compared 2 Ording

Oct 21/10