

(51) International Patent Classification:
C10M 173/02 (2006.01)(21) International Application Number:
PCT/US2014/050830(22) International Filing Date:
13 August 2014 (13.08.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/872,664 31 August 2013 (31.08.2013) US(71) Applicant: HOUGHTON TECHNICAL CORP.
[US/US]; 300 Delaware Avenue, Suite 316, Wilmington,
DE 19801 (US).(72) Inventors: CASKEY, Douglas, C.; 2252 Bustard Road,
Lansdale, PA 19406 (US). CAVANAUGH, Kenneth, R.;
47 Queen Street, Pottstown, PA 19464 (US).(74) Agents: PALOVICH, Tracy, U. et al.; Howson &
Howson LLP, 350 Sentry Parkway East, Building 620,
Suite 210, Blue Bell, PA 19422 (US).(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM,
ZW.(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).**Published:**— without international search report and to be republished
upon receipt of that report (Rule 48.2(g))

(54) Title: HYDRAULIC FLUID COMPOSITIONS

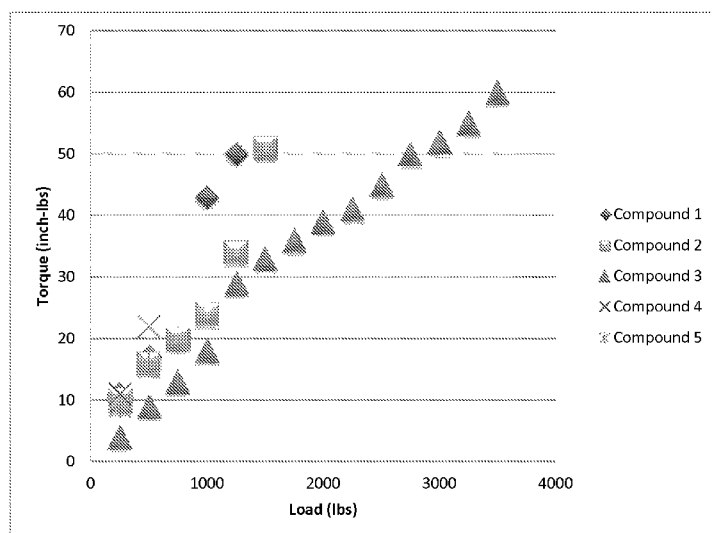


Figure 1

(57) **Abstract:** A novel hydraulic fluid composition for application to drilling equipment is described herein. These hydraulic fluid compositions permit effective monitoring or controlling well-head pressure of a well during drilling on land or offshore. The hydraulic fluid compositions prevent uncontrolled flow of gas, oil, or another well fluid out of an underground formation during a drilling or extraction process when applied to the drilling equipment. Accordingly, provided is a hydraulic fluid concentrate which contains a water-soluble phosphate ester and a sulfide compound containing at least one S-S linkage, at least 10 carbon atoms and at least one terminal carboxylate group, wherein the S-S linkage bridges two alkyl groups. Additional components can be added to the concentrate and include one or more alkaline compound, one or more dicarboxylic acid or salt thereof, a water-soluble corrosion inhibitor, a water-soluble biocide, a pour point depressant, and water, ethylene glycol, or a combination thereof. The concentrate is then further diluted by the customer for use as described herein. Particularly, these compositions are effective in redu-

cing seawater corrosion of a metal in contact with the hydraulic fluid composition, reducing bioaccumulation in oil drilling equipment contacted with the hydraulic fluid composition, and have low toxicity to sea life.